NETGEAR®

ReadyNAS Surveillance

Add-on Manual

Firmware:

RAIDiator 4.2.17 or later
ReadyNAS OS 6.0.4 or later

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202-11009-02

350 East Plumeria Drive
San Jose, CA 95134
USA

Support

Thank you for selecting NETGEAR products.

After installing your device, locate the serial number on the label of your product and use it to register your product at *https://my.netgear.com*. You must register your product before you can use NETGEAR telephone support. NETGEAR recommends registering your product through the NETGEAR website. For product updates and web support, visit *http://support.netgear.com*.

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Getting Started

1

This chapter covers the following topics:

- *About ReadyNAS Surveillance*
- *Requirements*
- *Make Sure That You Have the Licenses You Need*
- *Install Surveillance*
- *Log In to ReadyNAS Surveillance*
- *ReadyNAS Surveillance Toolkit*
- *ReadyNAS Surveillance Mobile App*

You can also visit the ReadyNAS Photos II Community Support Forum (at *www.readynas.com/forum/viewforum.php?f=145*).

About ReadyNAS Surveillance

The ReadyNAS Surveillance Add-on puts network video recorder (NVR) software onto the same ReadyNAS storage system that you can use to store your video data. You use Surveillance to manage your IP cameras, stream video, and store video data. The following illustration shows a small network that uses two IP cameras with a single ReadyNAS system.

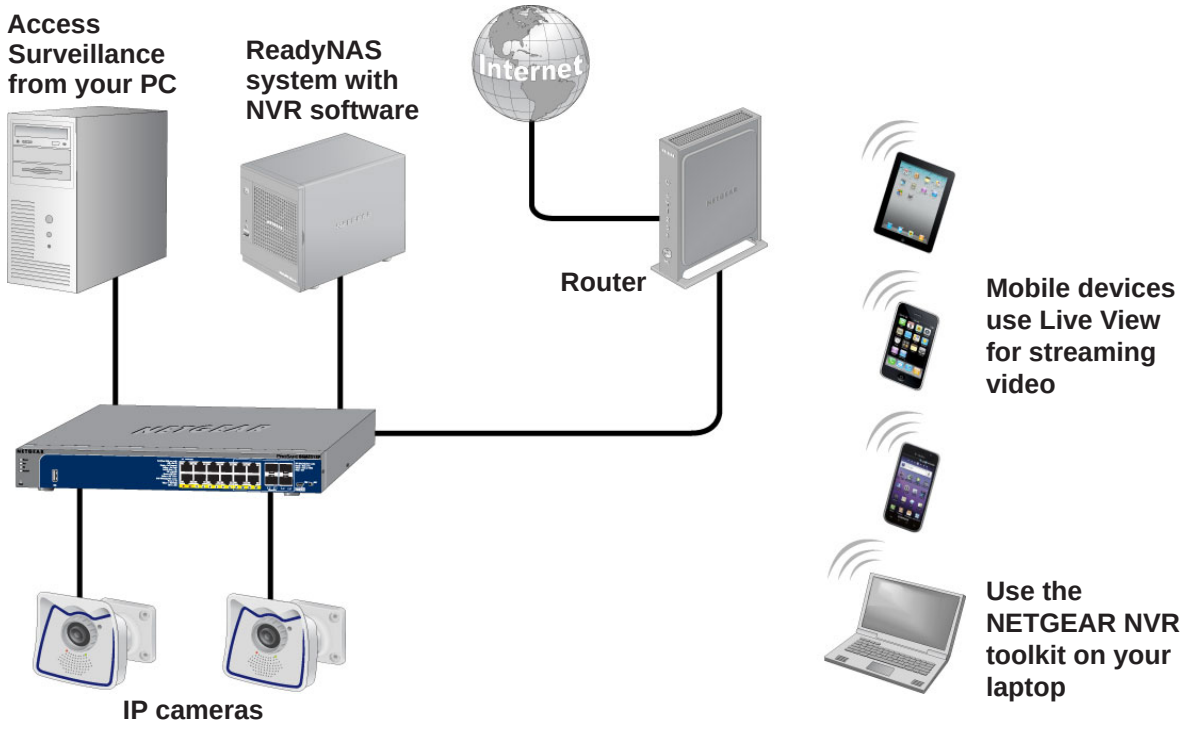

Access Surveillance from your PC
ReadyNAS system with NVR software
Internet
Router
Mobile devices use Live View for streaming video
Use the NETGEAR NVR toolkit on your laptop
IP cameras

Figure 1. Network with ReadyNAS Surveillance and two IP cameras

You can use a free trial version of ReadyNAS Surveillance for 30 days. After that, you need one or more licenses to run the software. Before you install ReadyNAS Surveillance, you must install your ReadyNAS storage system and set it up as described in your ReadyNAS installation guide and user manual.

You can work with ReadyNAS Surveillance in several ways:

- **Surveillance Add-on**. The main software that you install through FrontView. It loads the NVR software onto your ReadyNAS storage system, and allows you to use your Internet browser to specify settings for your system, to use Live View, and to use Playback.
- **ReadyNAS Surveillance toolkit**. A group of Windows-based applications that let you use Live View and Playback, and manage some settings such as those for backing up video data without using FrontView.
- **Live View for mobile devices**. Use this app to view streaming video on your phone or mobile device.

Compatible Products

- ReadyNAS Surveillance is compatible with ReadyNAS Ultra, Pro, and rack-mount products using firmware 4.2.x or ReadyNAS 100, 300, 500 series devices using firmware 6.x.
- ReadyNAS Surveillance is compatible with major IP camera vendors including Axis, ACTi, Arecont, IQinVision, Mobotix, Panasonic, Sony, Vivotek, and many other brands. For a complete list visit *http://www.netgear.com/business/products/storage/ReadyNAS-surveillance/*.

Surveillance Home

The ReadyNAS 100 series supports the Surveillance Home application. The following table shows the features for both the standard and home versions.

Feature	ReadyNAS Surveillance	ReadyNAS Surveillance Home
Camera input/output	Yes	No
Scheduled recording	Yes	No
Motion detection based recording	Yes	No
30-day free trial license supporting 16 cameras	Yes	No
Camera licenses included	None	1

Requirements

To use Surveillance with a compatible ReadyNAS unit and cameras, you need the following:

- RAIDiator firmware version 4.2.17+ or ReadyNAS OS 6.0.4+
- Licenses based on the number of cameras that you are using (a free 30-day trial license comes with the Surveillance Add-on)
- Some features require Microsoft Internet Explorer 8+
- Microsoft Visual C++ 2005 SP1 Redistributable package (vcredist_x86.exe), which you are prompted to download and install during the ReadyNAS Surveillance installation.

Install Surveillance

On Windows Server 2008, the ReadyNAS Surveillance Toolkit needs to be installed before the Add-on. See *ReadyNAS Surveillance Toolkit* on page 9. When you download the ReadyNAS Surveillance Add-on, you can purchase a license or use the free 30-day trial version.

➢ **To install Surveillance on RAIDiator 4.2.x based devices:**

1. Make sure that your ReadyNAS storage unit is installed and working on your network.
2. Use the RAIDar discovery tool to display the FrontView screen for your ReadyNAS storage system.
3. In FrontView, from the main menu, select **Add-ons > Installed**.
4. Click **Surveillance Add-on**.

   The software is installed and a message displays notifying you that you have a free 30-day trial license.

➢ **To install Surveillance on ReadyNAS OS 6.x based devices:**

1. Make sure that your ReadyNAS storage unit is installed and working on your network with an Internet connection.
2. Access the local admin page for the ReadyNAS device.

   You can use ReadyCLOUD, the local IP address, or RAIDar.
3. Select **Apps > Installed**.
4. Turn on the Surveillance app.
5. Wait a few minutes while the application accesses the Internet configures itself.
6. Click the **Launch** button to start the application.

Make Sure That You Have the Licenses You Need

You need a license for each ReadyNAS storage system that will use the Surveillance Add-on. To buy a license, contact your local reseller or e-commerce site. When you purchase a license, you need to activate it. See *Activate a License* on page 33.

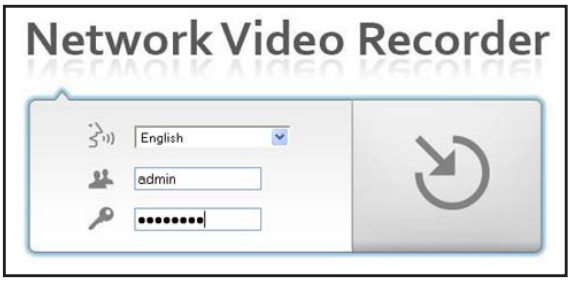
You can transfer an active license from one ReadyNAS unit to another, but you cannot duplicate a single license for use on multiple ReadyNAS units. See *Transfer Licenses* on page 35.

Log In to ReadyNAS Surveillance

➢ **To log in:**

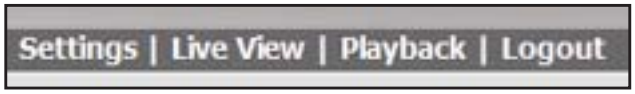
1. In FrontView, from the main menu, select **Add ons > Installed**.
2. Click the **Manage ReadyNAS Surveillance** button.

You are prompted to log in:



3. (Optional) To change the language, select a language from the drop-down list.
4. In the user name field, type **admin**.
5. In the password field, type **netgear1**.

   The Surveillance screen displays. The main menu is in the upper right corner:



- **Settings**. Set up Surveillance to work with your cameras and specify recording events and associated actions such as email notifications.
- **Live View**. View live streaming video.
- **Playback**. View recorded video.

ReadyNAS Surveillance Toolkit

The toolkit is a Windows-based group of applications that you can use to work with ReadyNAS Surveillance without using the FrontView application for your ReadyNAS storage system. This toolkit is especially useful if your computer or mobile device is not on the same local area network (LAN) as the ReadyNAS storage unit.

Note: On Windows Server 2008, the ReadyNAS Surveillance Toolkit needs to be installed before the Add-on.

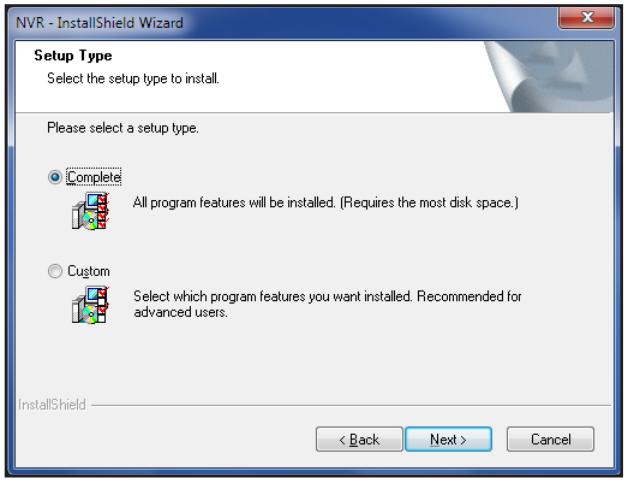
The toolkit includes the following:

- Backup System
- Offline License Tool
- Playback System
- Remote Live Viewer
- Verification Tool

➢ **To install the ReadyNAS Surveillance Toolkit:**

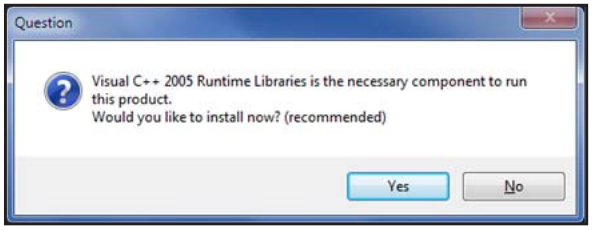
1. Download the toolkit from the ReadyNAS download website at: *www.readynas.com/surveillance*.
2. Unzip the file and double-click the **setup.exe** file.
3. When prompted, select a setup language, or leave English selected.
4. Click **Next** and follow the wizard steps to accept the license agreement for the ReadyNAS Surveillance Toolkit, and to enter your user name and company.

   You are prompted to select a complete or custom installation:


NVR - InstallShield Wizard
Setup Type
Select the setup type to install.
Please select a setup type.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Select which program features you want installed. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel

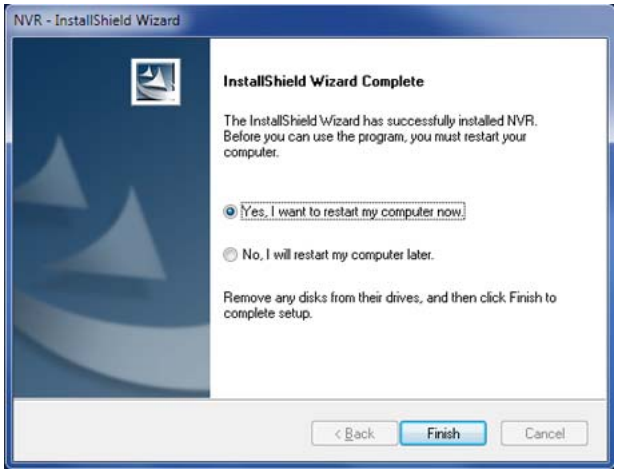
5. Select a radio button and click **Next**.

   You are prompted to install Visual C++ 2005 Runtime Libraries, which you need to use the ReadyNAS Surveillance Toolkit.


Question
Visual C++ 2005 Runtime Libraries is the necessary component to run this product.
Would you like to install now? (recommended)
Yes
No

6. Click **Yes** and then accept the license agreement.

The following screen displays:

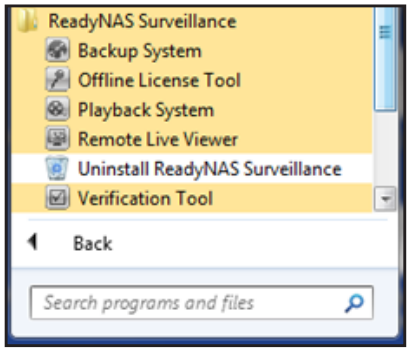

NVR - InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed NVR. Before you can use the program, you must restart your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
< Back
Finish
Cancel

7. Select a radio button and click **Finish**.

   After your computer restarts, the toolkit is available on the Windows Start menu.

➢ **To uninstall the toolkit:**

1. On the Windows Start menu, select **All Programs > ReadyNAS Surveillance > Uninstall ReadyNAS Surveillance**.



2. Select the **Remove** radio button and click **Next**.
3. Follow the wizard prompts to uninstall the software.

ReadyNAS Surveillance Mobile App

You can use the ReadyNAS Surveillance mobile app to view live video and take snapshots of it on your iPhone, iPad, or Android phone.

➢ **To set up the app:**

1. Download and install the ReadyNAS Surveillance app from the Apple App Store or Google Play Store.
2. Tap the **Surveillance** icon

to launch the app.
3. In the My Sites screen, tap **+** to add a server.

   The server settings screen displays:

4. Specify the location of the server (ReadyNAS system) to access that has the video that you want to view.
   - **Server Name**. Type a meaningful name for this ReadyNAS system.
   - **Server Address**. The external IP address of the router on the LAN that has the ReadyNAS system. You can use a tool like What Is My IP to identify the router's external IP address.
   - **Server Port**. The default port for Surveillance Live View is 5150. You must set up port forwarding in the router at the IP address you just specified. (You must log in to your router to set up the port forwarding.)
   - **User name**. Type **admin** (lowercase), which is the user name to access ReadyNAS Surveillance.

- **Password**. Enter the password that you set up for the admin user name. The default is netgear1, but NETGEAR recommends that you change it to a more secure password.

5. Tap **Save** to save your settings.

   This server is added to the My Sites screen.

➢ **To use the app:**

1. Tap the server.

   The video displays:

2. (Optional) You can use the icons at the bottom of the screen to adjust the viewing grid.

Camera Setup

2

This chapter covers the following topics:

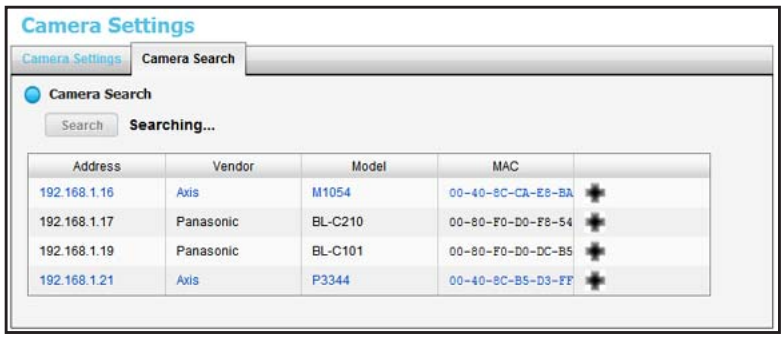
- *Add Cameras*
- *View or Change Camera Settings*
- *View or Change Camera Parameters*
- *Specify Lens Settings*
- *Set Up a Second Video Stream*
- *View Camera Status*

Add Cameras

You can search for cameras on the network and add them, or you can add them manually. You can either search for UPnP cameras, or use the camera search tool. Before searching, UPnP cameras, make sure that the cameras support UPnP.

➢ **To search for and add cameras:**

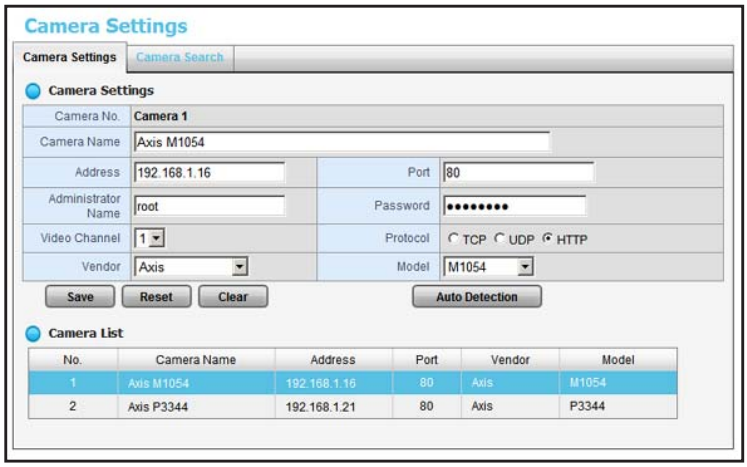
1. Select **IP Camera > Camera Settings > Camera Search**.
2. Click the **Search** button.



The screen expands and lists all the currently available cameras. The inserted cameras are shown in blue.

3. Click the **+** icon to add a camera to your camera list.

The Camera Settings screen displays.



4. Type the camera name, user name, and password.

Assign each camera to a different video channel. After the trial period, a license key is needed for each channel.

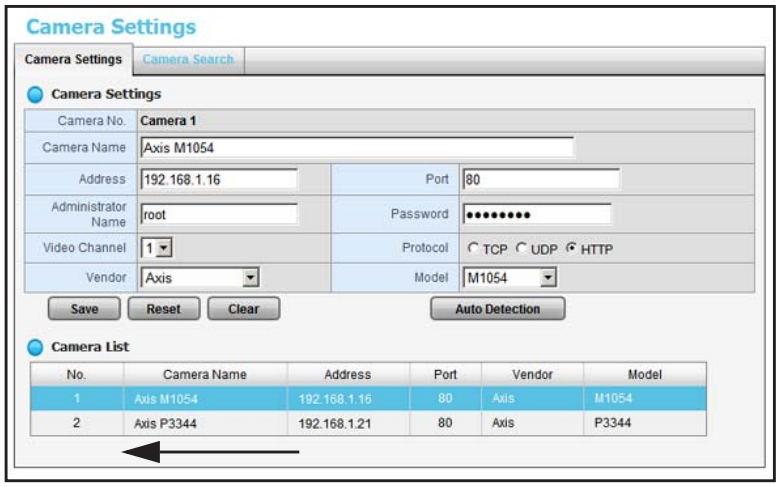
For better compatibility between the camera and the ReadyNAS system, make sure that the privilege of camera credential is admin level.

5. Click the **Add** button.

The updated camera list displays.

➢ **To manually add a camera:**

1. Select **IP Camera > Camera Settings**.



The number of rows in the Camera list depends on your license.

2. Click the next available row in the Camera List and enter the camera's information.
   - **Camera name**. Name of the camera.
   - **Address**. IP address.
   - **Port**. Transmission port.
   - **Administrator Name**. Login user name.
   - **Password**. Login password.
3. To save time, you can click **Auto Detection** to automatically detect the channel, protocol, vendor, and model. If you prefer, you can enter this information manually:
   - **Camera Channel**. The assigned channel number for each camera source.
   - **Protocol**. Data transmission protocol.
   - **Vendor**. Camera vendor name.
   - **Model**. Camera model name.

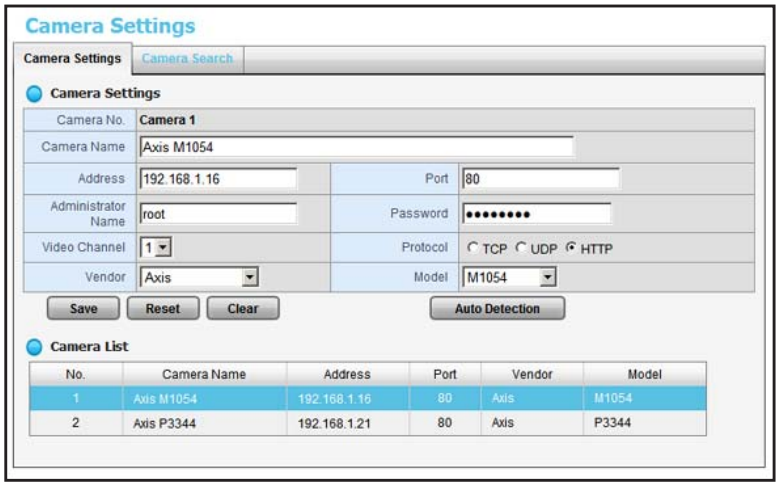
   For better compatibility between camera and system, make sure that the privilege of camera credential is admin level.
4. Click the **Save** button.

Note: You can use the Reset button to return to the latest saved settings of the selected camera. The Clear button returns all the settings to their default values.

View or Change Camera Settings

➢ **To view or change camera settings:**

1. Select **IP Camera > Camera Settings**.



   The Camera Settings tab is selected.

2. If you want to change the settings, click a camera to select it.
3. Modify the information for this camera.
   - **Camera Name**. The name of the camera.
   - **Address**. The IP address.
   - **Port**. The transmission port.
   - **Administrator Name**. Login user name.
   - **Password**. Login password.
4. Enter channel, protocol, vendor, and model details.

   To save time, you can click **Auto Detection** to automatically detect the channel, protocol, vendor, and model. If you prefer, you can enter this information manually:

   - **Video Channel**. The camera number of the video feed.
   - **Protocol**. Data transmission protocol.
   - **Vendor**. Camera vendor name.
   - **Model**. Camera model name.
5. Click the **Save** button.

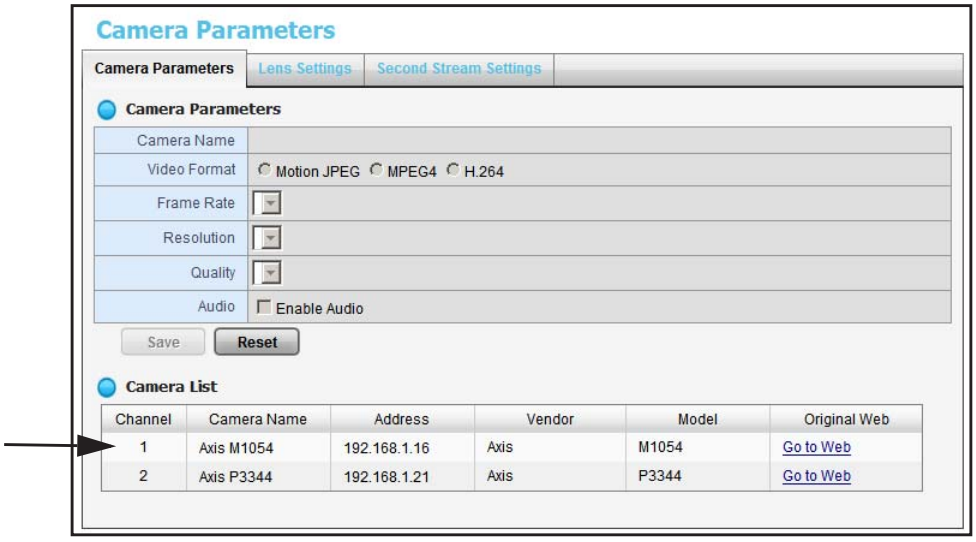
You can use this method to replace a camera if needed.

View or Change Camera Parameters

You can view and change details about each camera.

➢ **To view or change camera parameters:**

1. Select **IP Camera > Camera Parameters**.



The Camera Parameters tab displays.

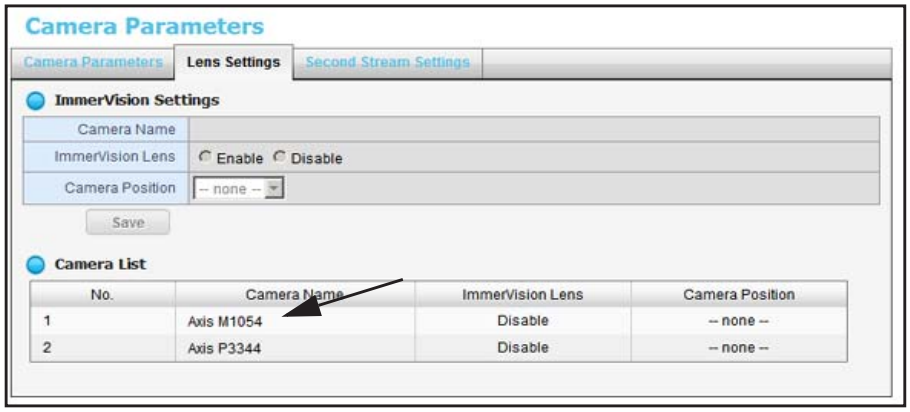
2. In the Camera List, click the camera that you want to modify.
3. Modify the information for this camera.
   - **Camera Name**. Name of the camera.
   - **Video Format**. Select the format that this camera supports.
   - **Frame Rate**. Select the frame rate of the camera.
   - **Resolution**. Select the resolution of the camera.
   - **Quality**. Select the image quality of the camera.
4. Click the **Save** button.

Specify Lens Settings

You can specify whether each camera uses an ImmerVision lens and its position.

➢ **To specify lens settings:**

1. Select **IP Camera > Camera Parameters > Lens Settings**.



2. In the Camera List, click the camera that you want to modify.
3. Modify the information for the camera.
   - **Camera Name**. Name of the camera.
   - **ImmerVision Lens**. If an ImmerVision lens is installed, select the **Enable** radio button.
   - **Camera Position**. Select the position of the camera as wall, ceiling, or ground.
4. Click the **Save** button.

Note: If you enable the lens and it is not installed correctly or not installed at all, a warning message displays if someone tries to operate the lens on the Live View screen.

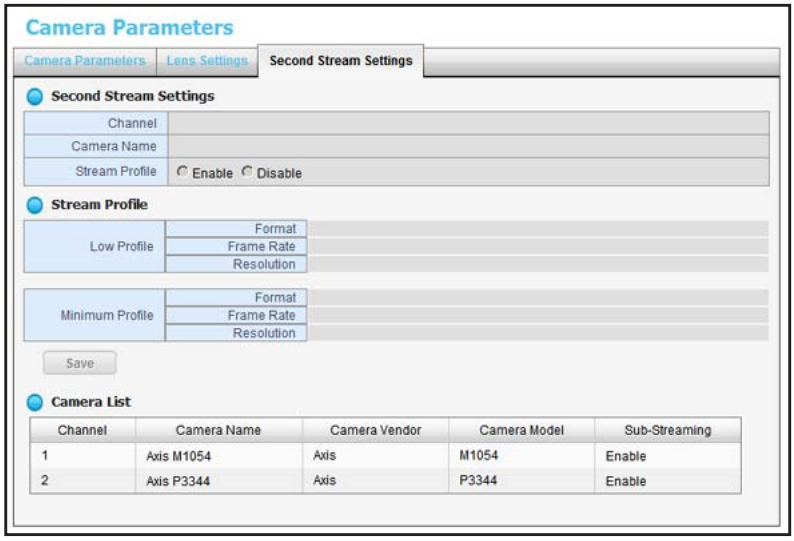
Set Up a Second Video Stream

You can set up two streams. The main video stream can be viewed from a computer on the network, or at a remote location with an Internet connection that has the bandwidth to support the flow of information. The settings for the main stream are shown in the Camera Parameters screen. See *View or Change Camera Parameters* on page 18.

The second stream uses a lower frames per second (FPS) live stream display, and is meant to be viewed from smartphones or mobile devices.

➢ **To set up a second stream:**

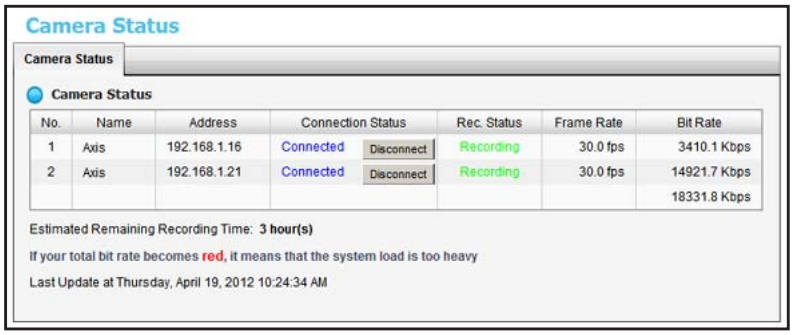
1. Select **IP Camera > Camera Parameters > Second Stream Settings**.



2. Adjust the following settings as needed:
   - **Stream Profile**. The default status is Disabled. If you want to allow a mobile client to access this camera, select **Enable**.
   - **Low Profile**. The stream profile, under 300 kbps, is designed for mobile client single view.
   - **Minimum Profile**. The stream profile, under 100 kbps, is designed for mobile client multiview.
3. Click **Save**.

View Camera Status

To view the camera status, select **IP Camera > Camera Status**.


Camera Status
Camera Status
Camera Status
No. Name Address Connection Status Rec. Status Frame Rate Bit Rate
1 Axis 192.168.1.16 Connected Disconnect Recording 30.0 fps 3410.1 Kbps
2 Axis 192.168.1.21 Connected Disconnect Recording 30.0 fps 14921.7 Kbps
18331.8 Kbps
Estimated Remaining Recording Time: 3 hour(s)
If your total bit rate becomes red, it means that the system load is too heavy
Last Update at Thursday, April 19, 2012 10:24:34 AM

The following information displays:

- **Connection Status**. The status of the connection. Click the **Connect** or **Disconnect** button to change the connection status.
- **Rec. Status**. The recording schedule of this camera.
- **Frame Rate**. The frame rate of this camera.
- **Bit Rate**. The transmission bit rate of this camera.
- **Estimated Remaining Recording Time**. The current free capacity divided by the dynamic total bit rate.

If the value in the total for the Bit Rate column is red, it means that the system load is too heavy.

Recordings & Events

3

This chapter covers the following topics:

- *Set the Recording Mode*
- *Set Up Events and Actions*
- *Recording Schedule*
- *I/O Boxes*
- *Email Setup*

Set the Recording Mode

The recording mode determines when each camera records video.

➢ **To set the recording mode:**

1. Select **Recording & Event > Recording Settings > Recording Mode**.

2. Select the recording mode that you want to use.
   - **No Recording**. Do not record video.
   - **Record by Schedule**. Record video based on a schedule.
   - **Always Record**. Automatically record video continuously on the selected cameras. If you select Always Record, the selected cameras start to record immediately.
   - **Automatic Recycle**. Select the **Enable** check box if you want to recycle disk space automatically when the disk is full.
   - **Keep Video**. Set a period during which the recorded video clips are retained.

   If both the Automatic Recycle check box and the Keep Video check box are selected, the Automatic Recycle setting overrides the Keep Video setting. In other words, if your disk gets full, newer video content is written on top of older content, which erases the older content.

3. Click **Save**.

Set Up Events and Actions

You can select which events trigger actions such as email notification. You can set up actions in response to camera events or system events.

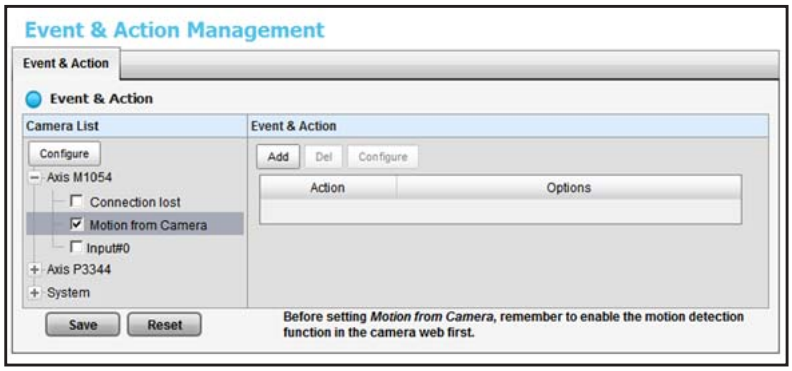
Set Up Camera Events

The available camera events depend on the particular camera, and can include the following:

- **Schedule-based events**. When a scheduled event occurs, the system triggers an action.
- **Connect lost**. When a connection between the camera and this unit is lost, the system triggers an action.
- **Motion from Camera**. When video motion is detected, the camera triggers an action.
- **Digital Input Trigger**. Any external input can trigger an action.

➢ **To set up camera events and triggered actions:**

1. Select **Recording & Events > Event & Action Management**.



2. In the Camera List, click the camera that you want to work with.

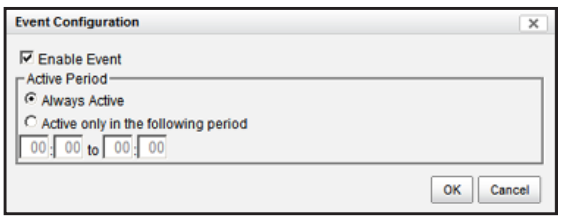
   Check boxes that allow you to select events display.

3. Select a check box for an event that you want to trigger an action.

   In this example, the Motion from Camera check box is selected. If you select the Motion from Camera check box, make sure that your camera's motion sensor is working.

4. Click the **Configure** button.

   The Event Configuration dialog displays:



5. Select the option that you want:

- **Always Activated**. The selected event is always active.
- **Activated only in the following period**. The selected event is active only in the designated time, which can include two days such as from 18:00 (6:00 p.m.) to 09:00 (9:00 a.m., the following morning).

6. Select a radio button, enter the time (if applicable), and click **OK**.
7. In the Event & Management screen, click **Add**. The action drop-down list displays these options:
   - **Output**. Send to the digital output list.
   - **Email**. Send email notification of this event to the contacts list.
   - **CMS**. Send notification of this event to the Central Management Software (CMS) system.
8. Select an action, and click **OK**.

   The event and action are displayed in the Event & Action table.
9. (Optional) To set up more events and actions, repeat steps 2 through 8.
10. When you are finished, click **Save**.

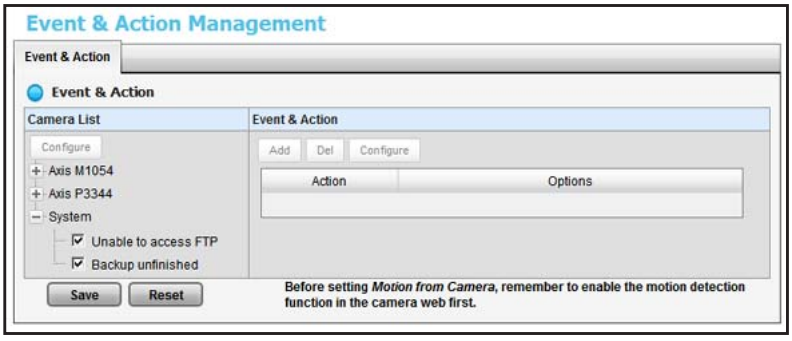
System Events

System events are based on lost FTP access and unfinished backups. You can set up email notification for them.

➢ **To set up email notification for system events:**

The email notification is sent to the contacts list.

1. Select **Recording & Events > Event & Action Management**.



2. Click **System** to expand this section of the screen.
3. You can select one or both the **Unable to access FTP** and the **Backup unfinished** check boxes.
4. Click **Add**.

   The events and email notification are displayed in the Event & Action table.
5. Click **Save**.

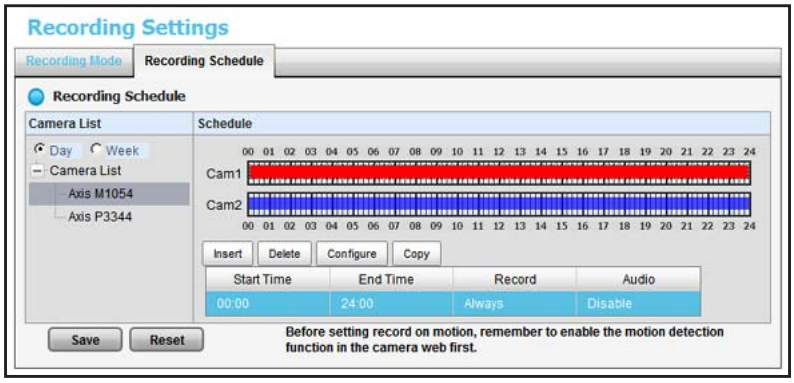
Recording Schedule

You can use the recording schedule to specify when to start and stop recording. When you set an event, you can specify that motion or digital input is triggered from other cameras. If the system detects motion or digital input from other cameras or the I/O box, the camera begins recording.

Note: When changing the motion detection settings of a camera, make sure to disconnect your unit and that camera first. After you finish, reconnecting them automatically updates the settings in your unit.

➢ **To set up a recording schedule:**

1. Select **Recording & Event > Recording Settings > Recording Schedule**.



2. Select the radio button for **Day** or **Week**.
   - **Day**. Schedule recordings at the same time every day.
   - **Week**. Schedule the recording for each day of the week differently.
3. Click a camera in the Camera List to select it.
4. Use the following buttons to create or adjust a schedule:
   - **Insert**. Insert new schedules.
   - **Delete**. Delete the selected schedule.
   - **Configure**. Modify the schedule and recording mode settings.
   - **Copy**. Copy today's schedule to other channels; or copy this week's schedule to other days of a week or other channels.
5. If you want to modify the time slot, click the **Configure** button to modify the settings first.

   The default setting for the camera's recording schedule is from 00:00 to 24:00.

   Note: *To change the recording time length, drag the end of the time bar from 24:00 back to the length you want, and drag the beginning of the time bar to the start time.*

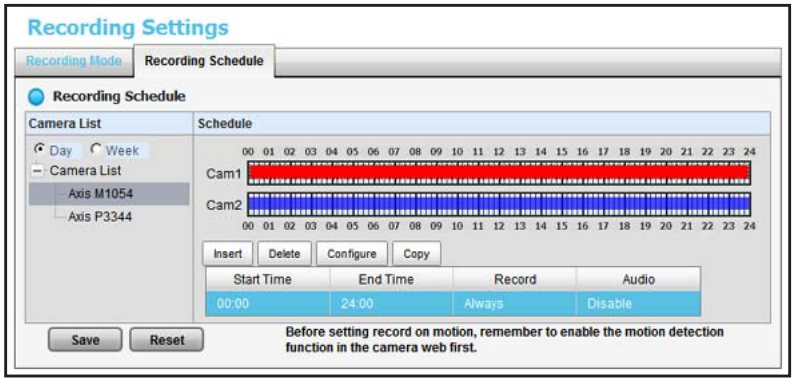
6. Select the recording mode.
   - **Always Record**. Always record.
   - **Record on Event**. Recording is triggered by an event such as motion detected by a camera or digital input.

   If you want to use the motion event, first make sure that motion detection is enabled for the camera.
7. If you want to add another new schedule, click the **Insert** button to add a new one.
8. Click the **Save** button.

Copy a Scheduled Event to Another Day

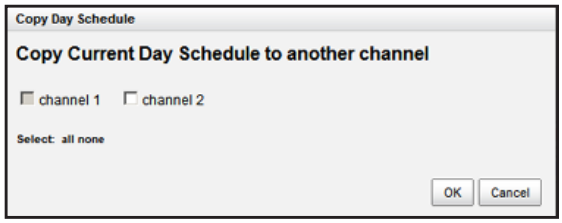
➢ **To copy a scheduled event:**

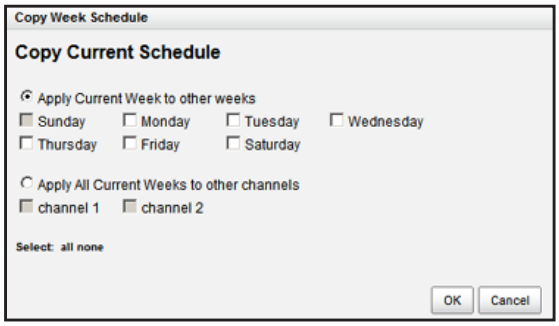
1. Select **Recording & Event > Recording Settings > Recording Schedule**.



2. Select the radio button for **Day** or **Week**.
   - **Day**. Schedule recordings at the same time every day.
   - **Week**. Schedule the recording for each day of the week differently.
3. Click a camera in the Camera List to select it.
4. Click **Copy**.

   One of the following dialog boxes displays:





5. Select the destination channels.

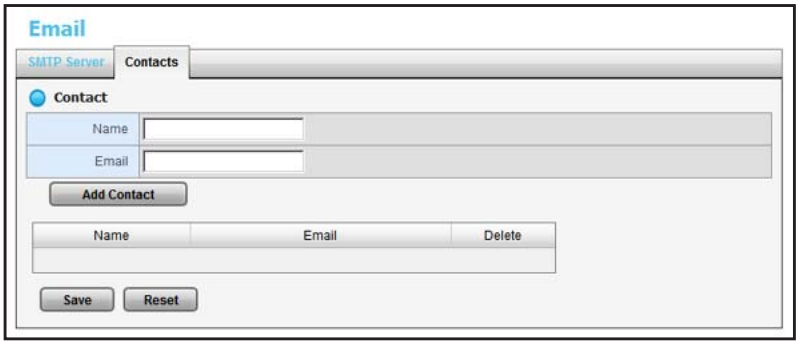
   If you are copying a week schedule, select the days of the week.

6. Click **OK**.

Add Event Contacts

➢ **To add event contacts:**

1. Select **Recording & Event > Email > Contacts**.



2. Type the name of a new contact.
3. Type the email address of the new contact.
4. Click the **Add Contact** button.
5. Click the **Save** button.

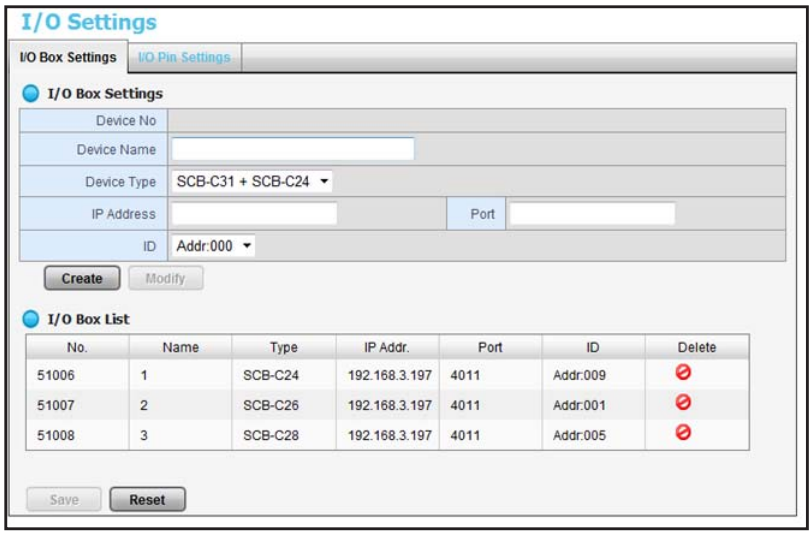
Note: The Reset button restores the last saved contact list.

I/O Boxes

ReadyNAS Surveillance supports I/O (input/output) boxes. Input/output signals delivered in RS485 format are converted to Ethernet. ReadyNAS Surveillance can use the signals to do sophisticated setup, such as starting recording when input is triggered, and triggering output as an event happens.

➢ **To set up I/O on ReadyNAS Surveillance:**

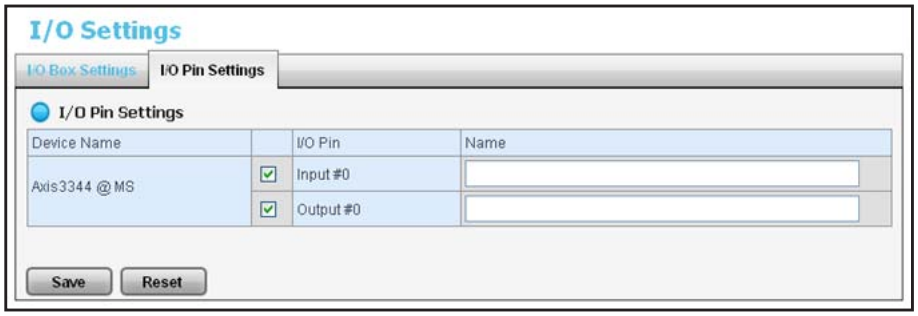
1. Select **I/O > I/O Box Settings**.



2. Select an I/O box from the I/O Box List.
3. Click the **Add** button to set up the responding actions of this event.
4. Click the action and then click the **Configure** button to modify the details of that action if necessary.
   - **Output**. When an event occurs, the system sends an output signal to other connected devices.
   - **Email**. When an event occurs, the system sends email notifications. Make sure to add at least one email contact.
   - **CMS**. When an event occurs, the system sends a signal to the central management software (CMS). CMS highlights this event.
   - **Show on Camera**. If an input is triggered, the system shows an alert message about the selected cameras.
5. Click the **Save** button.

➢ **To specify I/O pin settings:**

1. Select **I/O > I/O Pin Settings:**



2. Change the settings as needed.
3. Click the **Save** button.

Email Setup

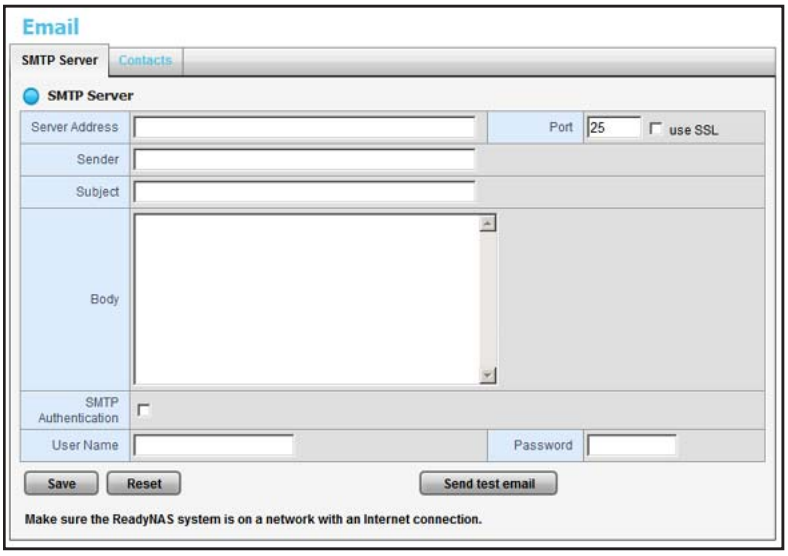
You can set up an SMTP (Simple Mail Transport Protocol) server and contacts for your email notifications.

SMTP Server Setup

You can set up an SMTP server.

➢ **To set up an SMTP server:**

1. Select **Recording & Event > Email > SMTP Server**.



2. Complete the following fields:
   - **Server Address**. SMTP server IP address.

- **Port**. SMTP port.
- **Sender**. Sender information.
- **Subject**. The subject of the mail.
- **Body**. Email content.
- **SMTP Authentication**. Select this check box if you want to use authentication. You need to enter the user name and password in the following two fields.
- **Username**. The user name for authentication.
- **Password**. The password for authentication.

3. Click the **Send Test Mail** button.

   The system sends a test message to the sender.

4. Verify that the test message arrived at its destination.
5. Click the **Save** button.

4 Management

This chapter covers the following topics:

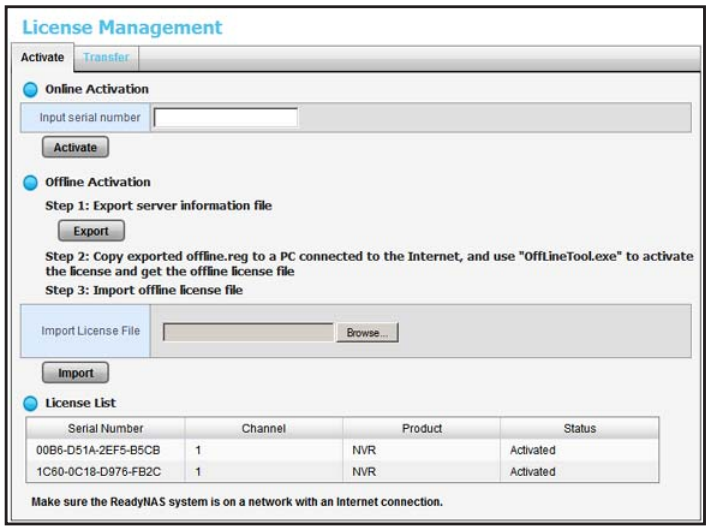
- *Activate a License*
- *Transfer Licenses*
- *Remove the ReadyNAS Surveillance Add-on*
- *Manage Users*
- *View Logs*
- *Manage the Configuration File*
- *Delete Recorded Video*
- *Manage the Configuration File*
- *CMS Service Setup*

Activate a License

A free 30-day trial license comes with the Surveillance Add-on. To buy a license, contact your local reseller or e-commerce site. You can activate a license in two ways, online and offline.

➢ **To activate a license when you are online:**

1. Log in to Surveillance and select **Management > License Management > Activate**.
2. In the Online Activation section, enter the serial number.



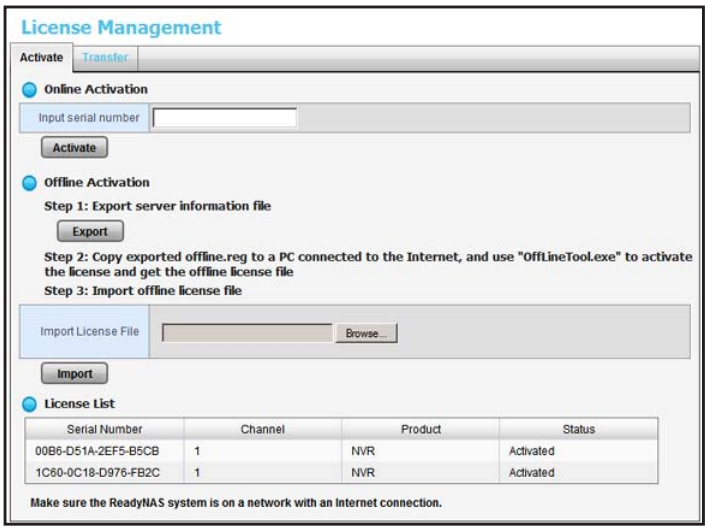
3. Click the **Activate** button.

   The license is updated in the License List if it is activated successfully. The ReadyNAS system reboots automatically.

➢ **To activate a license when your ReadyNAS system is offline:**

If the ReadyNAS storage system is set up in an intranet (local LAN) without an Internet connection, you can still activate the license with the Offline License Tool. The Offline License Tool is part of the ReadyNAS Surveillance Toolkit.

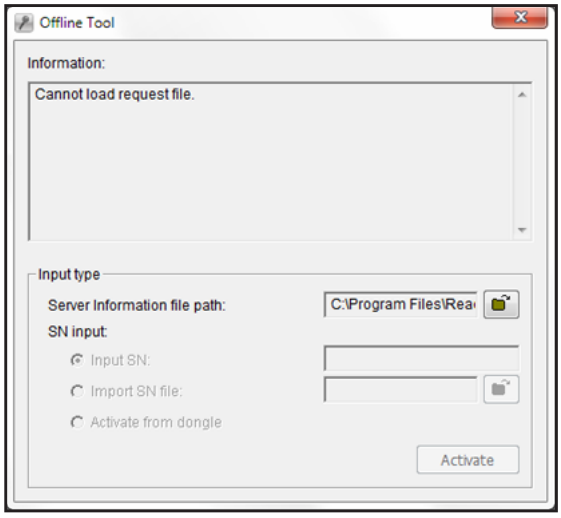
1. From a computer on the same offline LAN as the ReadyNAS system, log in to Surveillance and select **Management > License Management > Activate**.



2. Click the **Export** button.

   A Download dialog box displays.

3. Save the offline.reg file to portable media such as a USB flash drive.
4. Take the offline.reg file to a computer that has Internet access.
5. If you have not already done so, install the NETGEAR Surveillance Toolkit on this computer.
6. On the Windows Start menu, select or select **All Programs > ReadyNAS Surveillance > Offline License Tool**.



7. Select the file **offline.req**.
8. Enter the serial number.
9. Click the **Activate** button.

10. Save the file offline_license.dll on portable media such as a USB flash drive.
11. Return to the computer that is logged in to ReadyNAS Surveillance.
12. Import the license file to the ReadyNAS unit.

    The License List is updated if the license is activated successfully. The ReadyNAS storage system reboots automatically.

Transfer Licenses

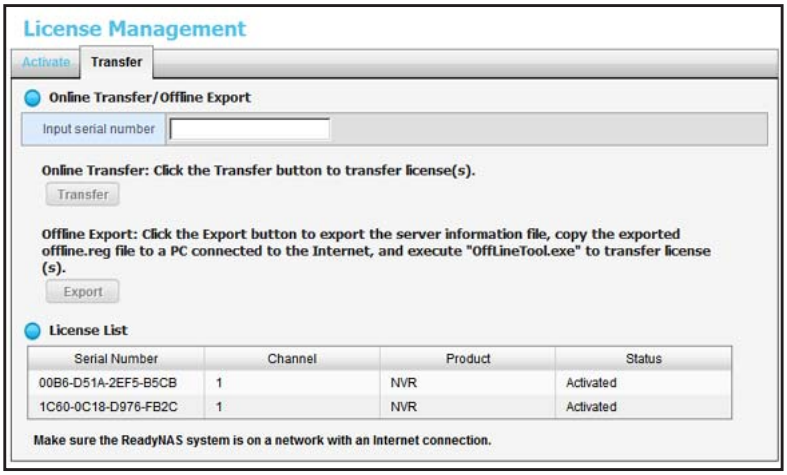
Licenses are available in multiple types: 1-camera license, 2-camera license, and 4-camera license.

ReadyNAS Surveillance software is stored on the ReadyNAS storage system's hard disk. If you format the ReadyNAS hard disk or reset the ReadyNAS storage system to its factory settings, your licenses are deleted.

You can transfer a license from a ReadyNAS system. You can also uninstall the ReadyNAS Surveillance software, and reinstall it later, or install it on a different ReadyNAS storage system if the license has not expired.

➢ **To transfer a license when you have Internet access:**

1. Select **Management > License Management > Transfer**.



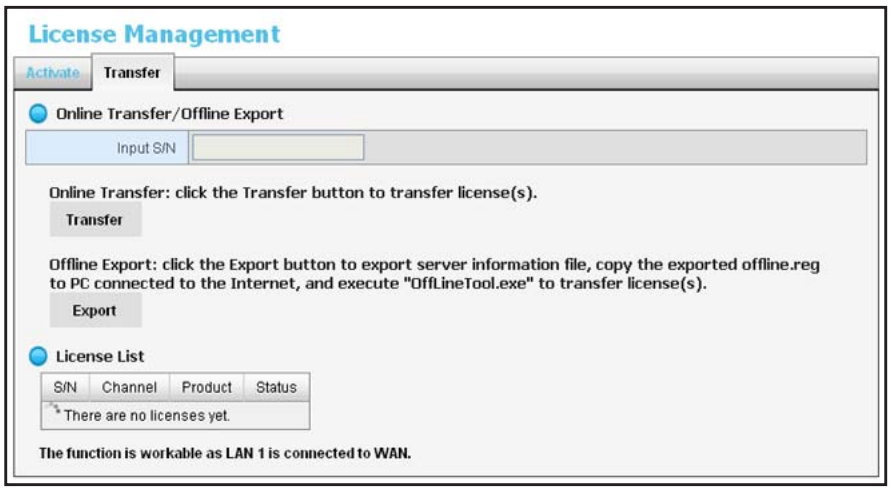
2. Select a license on the License List.

   The selected license is shown in the Input S/N field.

3. Click the **Transfer** button to transfer the license.

➢ **To transfer a license when you are offline:**

1. Select **Management > License Management > Transfer**.


License Management
Activate
Transfer
Online Transfer/Offline Export
Input S/N
Online Transfer: click the Transfer button to transfer license(s).
Transfer
Offline Export: click the Export button to export server information file, copy the exported offline.reg to PC connected to the Internet, and execute "OffLineTool.exe" to transfer license(s).
Export
License List
S/N
Channel
Product
Status
There are no licenses yet.
The function is workable as LAN 1 is connected to WAN.

2. Select a license in the License List.

   The selected license is shown in the Input S/N field.

3. Click the **Export** button.

   A registration file with name offline.reg is exported.

4. If you have not already done so, install the ReadyNAS Surveillance Toolkit on the computer that has Internet access.
5. Copy the exported offline.reg file to that computer.
6. On the Windows Start menu, select or select **All Programs > ReadyNAS Surveillance > Offline License Tool** to open the reg file.
7. Click the **Transfer** button.

   The license is transferred.

Remove the ReadyNAS Surveillance Add-on

➢ **To remove Surveillance:**

1. In FrontView, navigate to the Add-ons Available screen.
   - From the Dashboard screen (firmware version 5.3), select **Configure > Add-ons > Available**.
   - From the main menu (firmware version 4.2), select **Add ons > Available**.
2. Click the **Remove** button.

   The Surveillance add-on is removed.

Manage Users

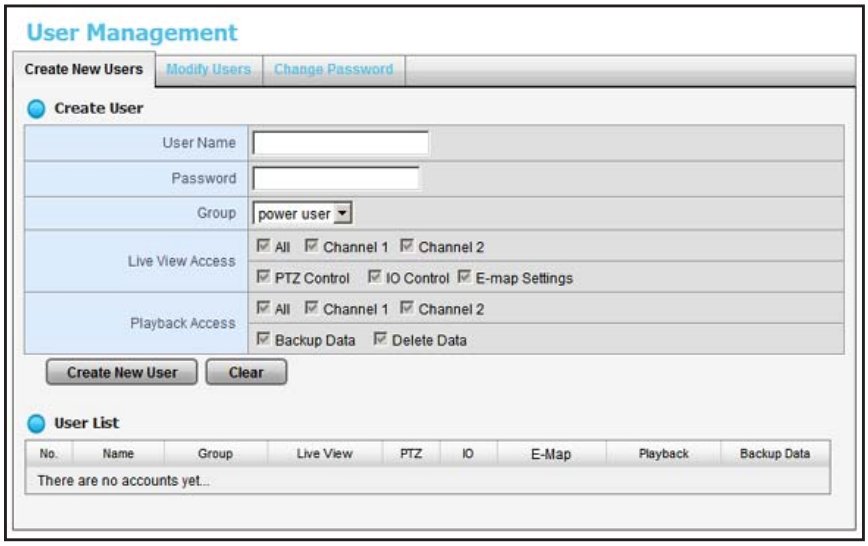
- **To view a list of users:**

  Select **Management/ User Management > Create New Users**.

  The list displays at the bottom of the screen.

- **To create a user:**

1. Select **Management/ User Management > Create New Users**.

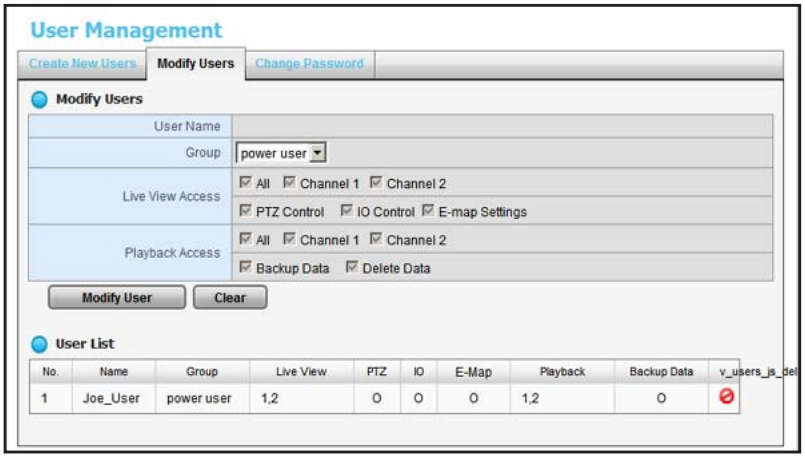


2. Enter the user name and password for the new user.
3. Select the group for this user.
   - **Power user**. Power users can access all settings except the management functions.
   - **User**. Users can change their passwords, use Live View, and use Playback.
   - **Guest user**. Users can use Live View and Playback, but cannot change their passwords.
4. Select the check boxes that specify Live View access for the user.
5. Select the check boxes that specify Playback access, and whether this user can back up or delete recorded data.
6. Click the **Create New User** button.

The administrator is the only user who can use all the functions. The default administrator account is admin. You cannot create another administrator account, and you cannot create another user that is named admin.

➢ **To modify user information:**

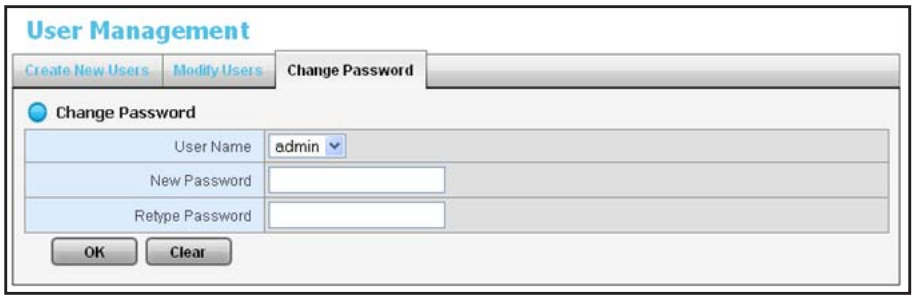
1. Select **Management > User Management > Modify Users**.



2. In the User List on the bottom of this screen, click a user.
3. Adjust the settings (described in the previous section).
4. Click **Modify User**.
5. Click **Save**.

➢ **To change a user's password:**

1. Select **Management > User Management > Change Password**.



2. Select the user.
3. Enter a new password in both fields.
4. Click **OK**.

➢ **To delete a user:**

You can delete any user except admin.

1. Select **Management > User Management > Modify Users**.
2. Click the **Delete** icon for the user you want to delete.
3. Click **OK**.

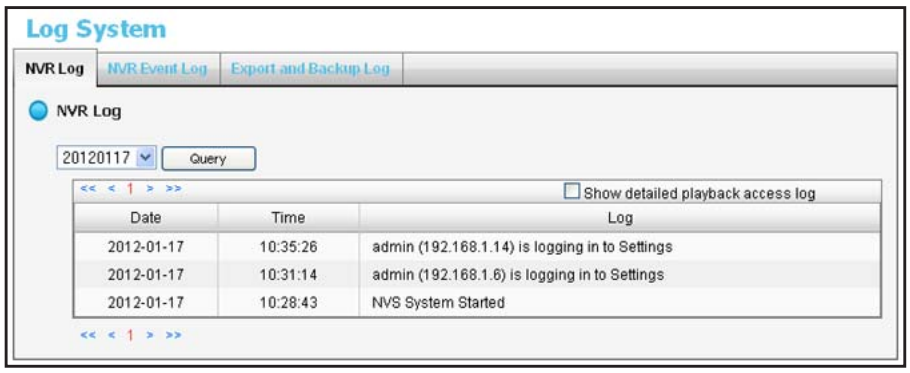
View Logs

To allow a user access to the logs, go to the Network Service screen and select the **Log Access** check box. You can view three kinds of logs.

- **NVR Log**. The log information for the NVR system, such as system, recording, user access information, and auto backup. The NVR Event Log shows entries only if an event is selected on the Event & Action Management screen.
- **NVR Event Log**. The log information for the Event & Action Management features, such as motion detection or camera connection lost.
- **Export and Backup Log**. This log tracks exported and backed up video data.

➢ **To view event logs:**

1. Select **Management > Log System**.



2. Click the tab to view the log that you want to see.

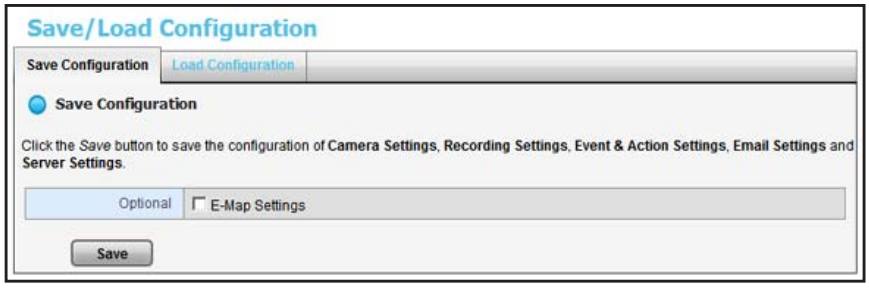
Manage the Configuration File

The configuration file includes the ReadyNAS Surveillance settings that you specify. You can save the configuration file and you can load it onto a ReadyNAS system. You can also save video data using the backup feature (see *Manage the Configuration File* on page 39).

Save and Load Configurations

- **To save the configuration:**

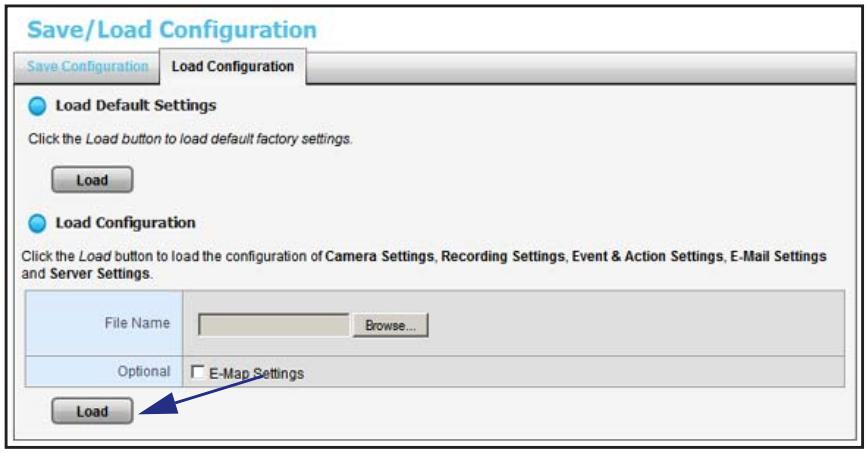
  1. Select **Management > Save/Load Configuration > Save Configuration**.


Save/Load Configuration
Save Configuration
Load Configuration
Save Configuration
Click the Save button to save the configuration of Camera Settings, Recording Settings, Event & Action Settings, Email Settings and Server Settings.
Optional
E-Map Settings
Save

  2. If you want to include E-Map settings (*E-Map* on page 60), select the **E-Map Settings** check box.
  3. Click **Save**.

- **To load the configuration:**

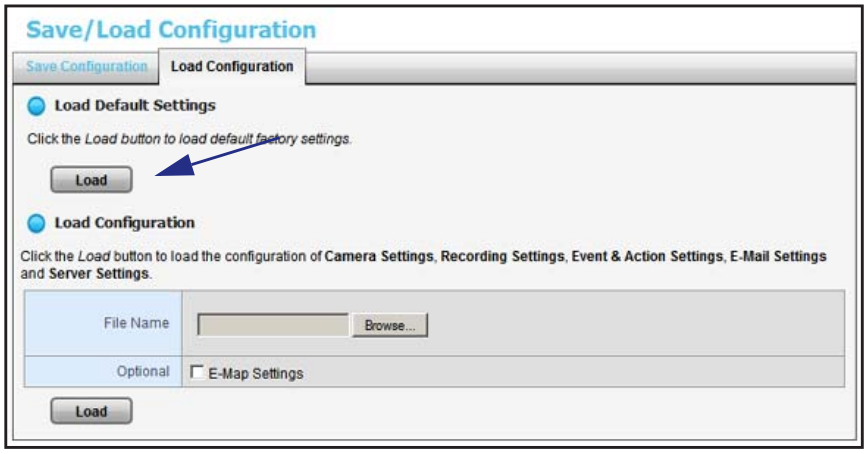
  1. Select **Management > Save/Load Configuration > Load Configuration**.



  2. Click the **Load** button at the bottom of the screen.

➢ **To load the factory default configuration:**

1. Select **Management > Save/Load Configuration > Load Configuration**.



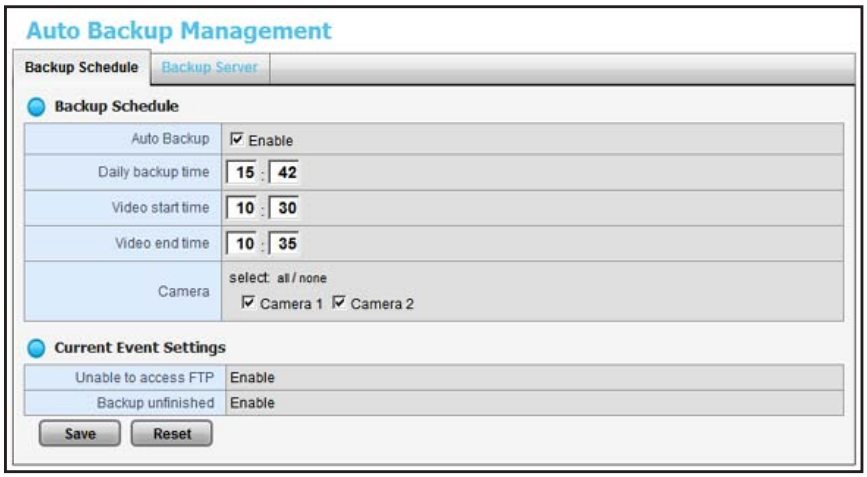
2. Click the **Load** button.

Set Up a Backup Schedule

The backup schedule lets you specify when your video data is backed up.

➢ **To set up a backup schedule:**

1. Select **Recording & Event > Auto Backup Management > Backup Schedule**.



2. Specify the backup settings:
   - **Auto Backup**. Select the **Enable** check box for automatic backup.
   - **Daily Backup Time**. The daily scheduled time to start the backup process.
   - **Start Time**. The start time of video recorded on the previous date.
   - **End Time**. The end time of video recorded on the previous date.
   - **Camera**. Select the channels to back up.

   The Current Event Settings show if auto backup is enabled or disabled.

3. Click the **Save** button.
4. Set up the event and action (see *Set Up Events and Actions* on page 24).

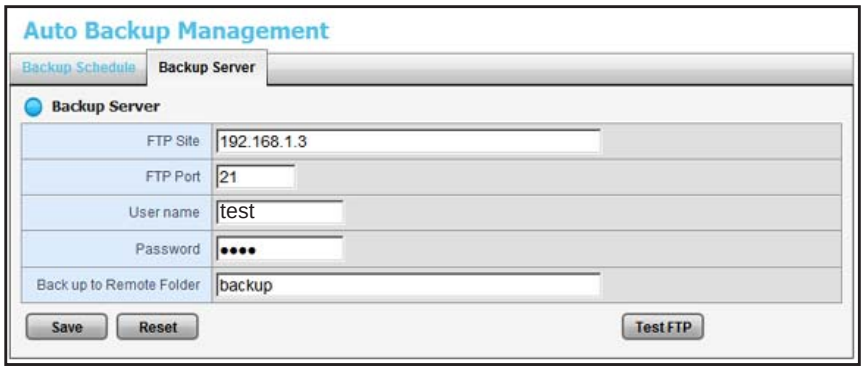
   The system backs up recorded video files one by one. If the connection between the ReadyNAS unit and FTP server is normal, but problems prevent the system from writing files to the FTP site, the system tries each file three times before backing up the next file. If the connection is lost, the system waits for the connection, so no file are skipped.

Set Up a Backup Server

You can specify the server on which to back up video data.

➢ **To set up a backup server:**

1. Select **Auto Backup Management > Backup Server**.



2. Set up the FTP server and create a folder for backup files.

   The folder format is FolderName, FolderName/SubFolderName, and so on.

   For example: AutoBackup/NVR

3. After you fill in all the fields, click the **Test FTP** button.

   The system creates an FTP folder.

4. Verify that the test was successful.
5. Click the **Save** button.
6. Make sure that the administrator for ReadyNAS Surveillance has access to the FTP account and has permission to upload, rewrite, and delete files, and create new folders. Also make sure that the FTP server has enough space for auto backup.

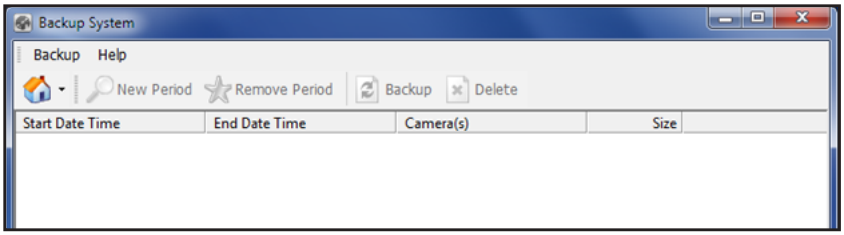
To avoid backup failures, verify the FTP server condition regularly (make sure that it has enough space for the video files and that system is operating properly).

Backup System Tool

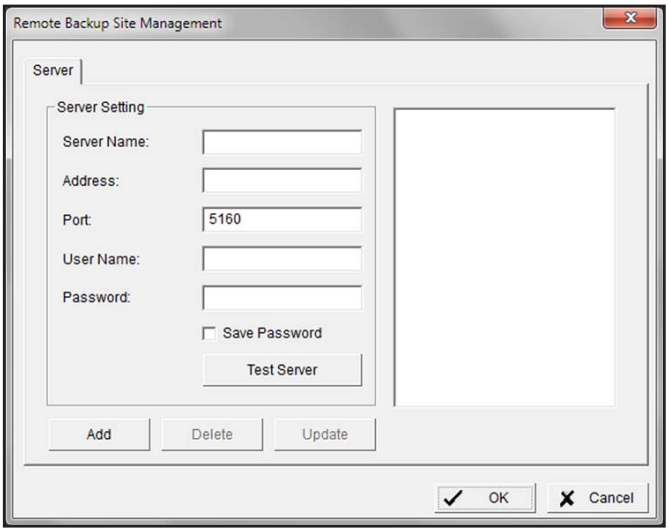
Once you specify the ReadyNAS IP address, and enter the Surveillance user name and password, you can use the Backup System Tool to create a backup job from your Windows computer. The backup destination can be a hard disk or CD-ROM.

➢ **To set up ReadyNAS access for the Backup System tool:**

1. On the Windows Start menu, select or select **All Programs > ReadyNAS Surveillance > Backup System**.



2. Click the icon to set up the remote server (the location of the ReadyNAS system).



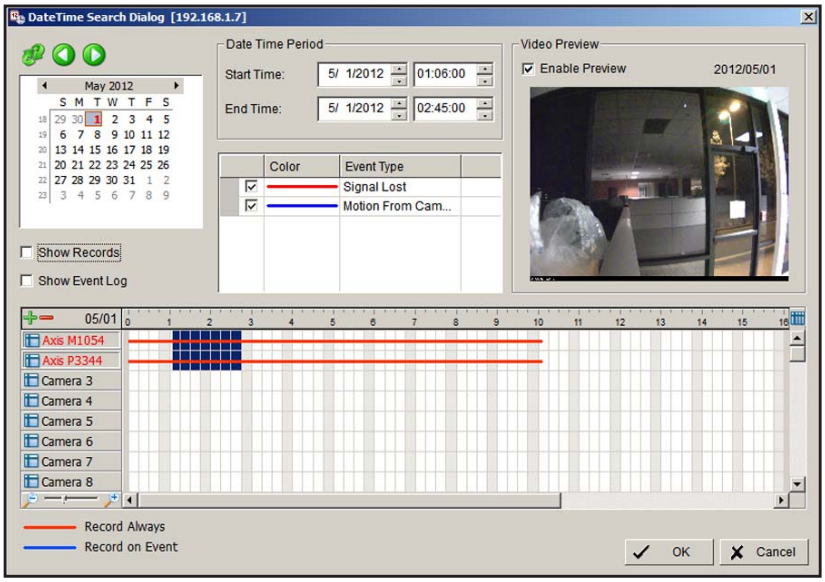
3. Enter the following information:
   - In the Server Name field, enter the name of the ReadyNAS system.
   - In the Address field, type the IP address of that ReadyNAS system (you can use the RAIDar tool to find out what the IP address is).
   - Modify the port number if necessary.
   - In the User Name field, type **admin** (the Surveillance user name).
   - In the Password field, type the password that you use to access Surveillance. The default password is netgear1, but NETGEAR recommends that you change this to a more secure password.
4. Select the **Save Password** check box.

5. Click the **Test Server** button to test the connection between the local application and the ReadyNAS unit.
6. Click the **Add** button to add this ReadyNAS system into the remote server list.
7. Click the **OK** button.

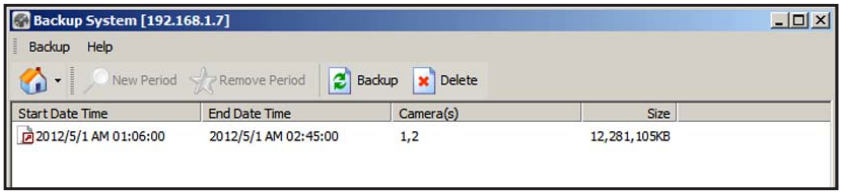
Set Up a Backup Job

➢ **To use the Backup System tool to set up a backup job:**

1. If you have not already done so, set up access to ReadyNAS Surveillance as described in the previous section.
2. On the Windows Start menu, select or select **All Programs > ReadyNAS Surveillance > Backup System**.
3. Click the triangle button next to the Remote Server Site icon, and select a server. (ReadyNAS system).
4. Click **New Period**.

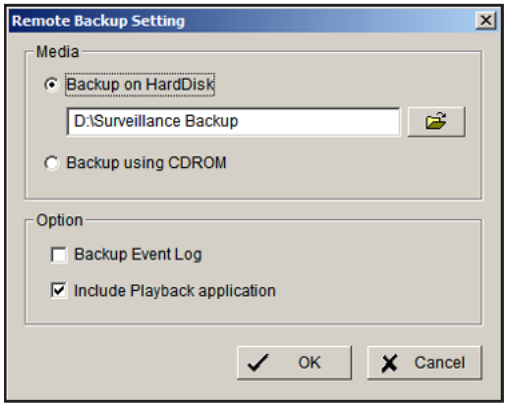


5. Set the start time and end time of the period you want to back up (or highlight the video records that you want to back up).
6. Select the cameras you want to back up and click the **OK** button.



7. Select the time slot that you want to back up.

8. Click the **Backup** button.



9. Specify the details for your backup.
10. (Optional) To use the Playback application to play back records in the backup folder, select the **Include Playback application** check box.
11. Click the **OK** button.

Use Windows Explorer to Back Up Video Data

- **To back up video data in a public folder:**

1. In Windows Explorer, look for \\ plus the IP address of your ReadyNAS system.
2. Open the public folder.
3. Enter the name and password of the administrator.
4. Select the volume and open the VIDEODATA folder.
5. Copy the date folder that you want to back up to your computer.

- **To back up video data through FTP:**

1. In Windows Explorer, look for ftp\\ plus the IP address of your ReadyNAS system.
2. Enter the name and password of the administrator.
3. Select the volume and open the VIDEODATA folder.
4. Copy the date folder that you want to back up to your computer.

Delete Recorded Video

You can delete recorded video using the Backup System tool or Windows Explorer.

- **To use the Backup System tool to delete recorded video:**

1. On the Windows Start menu, select or select **All Programs > ReadyNAS Surveillance > Backup System**.
2. Click the triangle button next to the icon, and select a server (a ReadyNAS unit).
3. Click **New Period**.

4. Set the start rime and end time, or highlight the video records that you want to delete.
5. Select the cameras for which you want to delete records.
6. Click the **OK** button.
7. Select the time slot for the video that you want to delete and click the **Delete** button.
8. Confirm the deletion.

➢ **To delete recorded video using Windows Explorer:**

1. In Windows Explorer, look for \\ plus the IP address of your ReadyNAS system.
2. Open the public folder.
3. Enter the name and password of the administrator.
4. Select the volume and open the VIDEODATA folder.
5. Select the date folder that you want to delete.
6. Delete the folder.

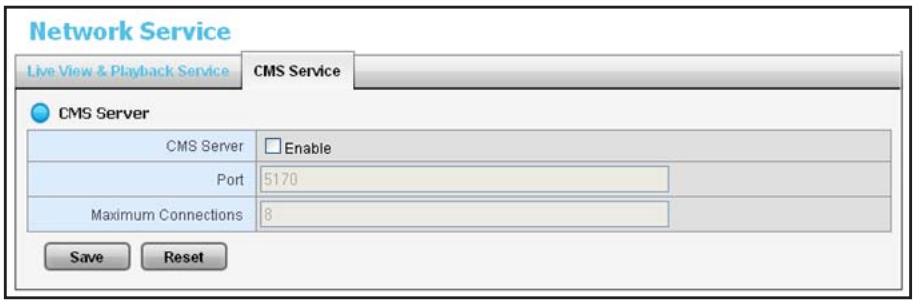
To keep the system stable, do not delete recorded data from the day in which you do the delete process.

CMS Service Setup

You can enable central management software (CMS) service and specify the port and the maximum number of connections.

➢ **To view or change the CMS Service settings:**

1. Select **Network Setup > Network Service > CMS Service**.



2. Specify the settings:
   - **CMS Server**. Select the **Enable** check box for CMS service.
   - **Port**. The port number through which the CMS connects to this ReadyNAS unit.
   - **Maximum Connections**. The maximum number of allowed CMS connections.
3. Click the **Save** button.

Live View

5

Live View lets you watch video feeds on your computer.

This chapter covers the following topics:

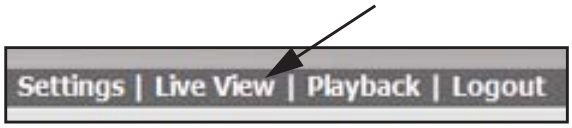
- *Access Live View*
- *Live View Screen*
- *Apply a Privacy Mask*
- *Live View Settings*
- *E-Map*

Access Live View

You can use Live View in two ways, through FrontView or with the Remote Live Viewer application from the ReadyNAS Surveillance Toolkit. The Live View screen looks the same when accessed either way.

➢ **To access Live View from FrontView:**

1. In FrontView, from the main menu, select **Add ons > Installed**.
2. Log in to Surveillance and select **Live View**.



Remote Live Viewer Tool

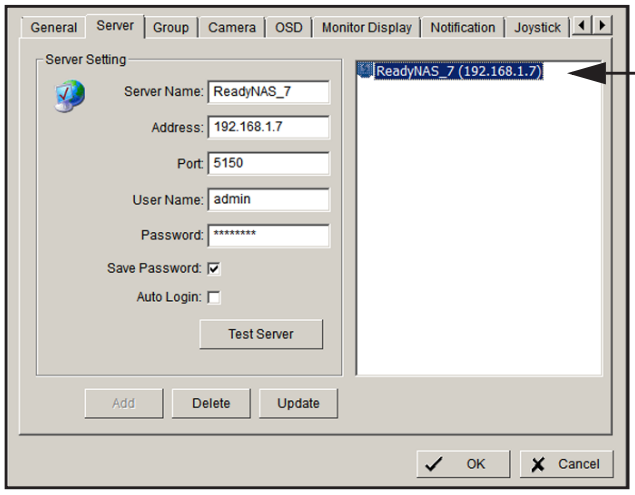
You need a Windows-based computer with the ReadyNAS Surveillance Toolkit installed.

From the Windows Start menu, select or **All Programs > ReadyNAS Surveillance > Remote Live Viewer**.

The first time you use the Remote Live Viewer application, you must set up access from the desktop to the ReadyNAS system.

➢ **To specify the Remote Live Viewer settings:**

1. Click the **Settings** icon and select the Server tab:



This is a ReadyNAS system. You can click it to complete the fields.

2. Fill in the fields to specify the server (the ReadyNAS unit) that you want to access.
3. Click the **Test Server** button.

   The server settings are tested.

Surveillance Mobile App

You can use the mobile app to view live video from your iPhone, iPad, or Android phone. See *ReadyNAS Surveillance Mobile App* on page 12.

Live View Screen

When you select Live View, the Live View screen displays:

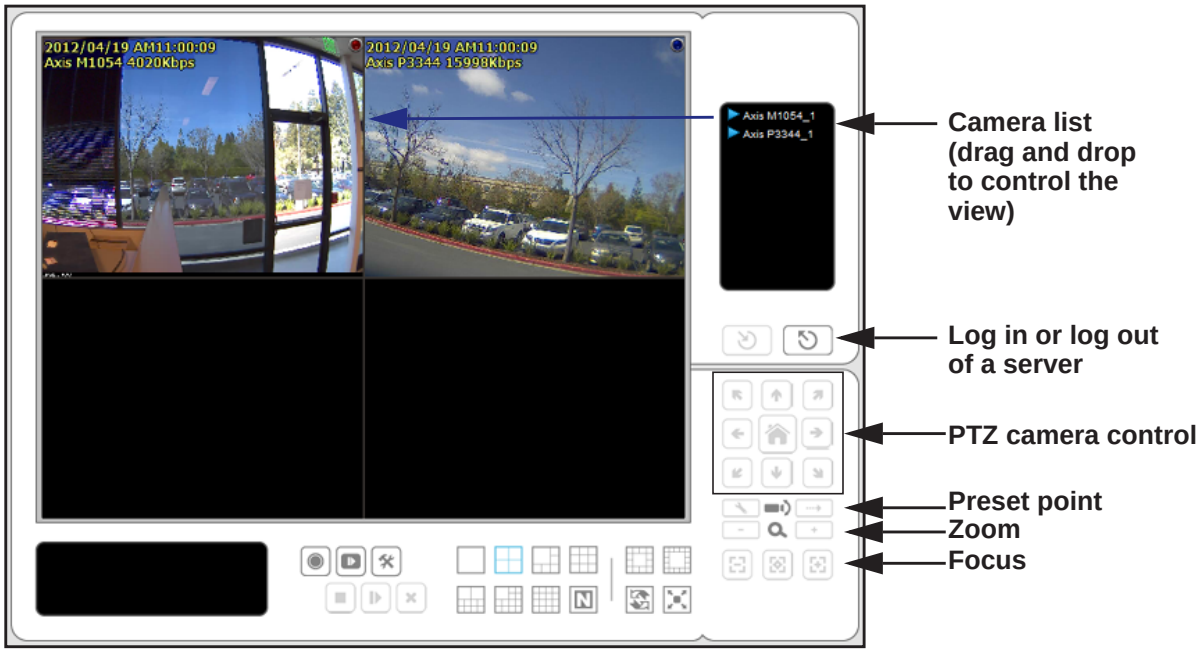


Figure 2. Live View screen with video

To adjust the location of streaming video, click a camera in the Camera list and drag it to the position where you want to display the image. This screen has buttons on the side pane and at the bottom of the screen. PTZ camera control is available only with cameras that support the PTZ function.

Camera List Right-Click Menu

You can right-click the camera list to duplicate and connect or disconnect cameras, and other functions.

- **Duplicate Camera**. Create multiple views. The duplicated cameras are each shown with a green indicator. You can combine Duplicate Camera feature with digital PTZ to enlarge different spots and view them in different channels while recording the whole view.
- **Connect / Disconnect**. Connect or disconnect the camera.
- **Logout Server**. Log out of the currently selected server.
- **Connect All / Disconnect All**. Connect or disconnect all cameras.

Information, Navigation, and Playing Video

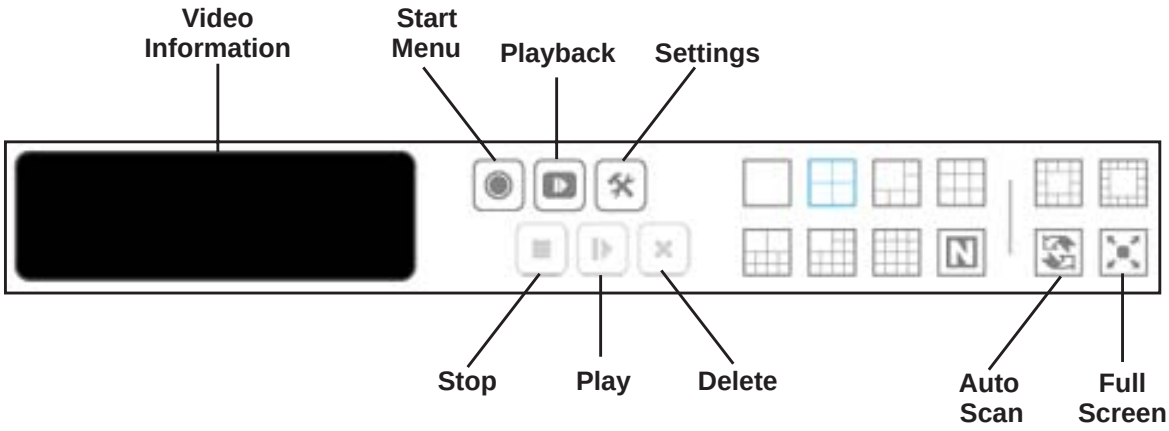
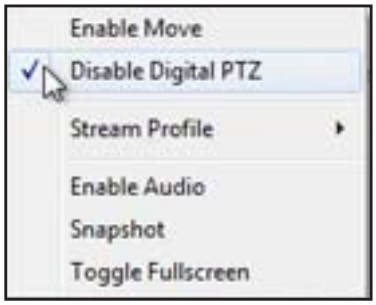


Figure 3. Live View buttons, bottom of the screen

The buttons on the bottom of the screen are as follows:

- **Video Information**. Displays video information including server name, current video status, and bit rate for a selected channel.
- **Start Menu**. Click the **Start menu** button to display the following selections:
  - **Open E-Map**. Upload a map and drag a camera or onto it to track the device location and alarm status with an instant response if an event occurs. For more information about E-map, see *E-Map* on page 60.
  - **I/O Control Panel**. Use the I/O device function remotely. See *I/O Control Panel* on page 51.
  - **Privacy Mask**. Apply a mask to one or more areas in the camera view to prevent those areas from being recorded. See *Apply a Privacy Mask* on page 52.
- Playback. Play back video.
- **Settings**. Specify Live View settings. See *Live View Settings* on page 54.
- Stop/Play/Erase. Stop, play, or erase the currently selected video.
- **Layout buttons**. Control how many video streams are viewed simultaneously and how they are arranged on the screen.
- **Auto Scan**. Cycle through the channels on the display. For example, you can see only 4-split screens on Live View. If you have 16 channels, you can cycle through views to see all 16 channels.

Camera Screen Right-Click Button



You can right-click the camera screen to use the following functions.

- **Enable Move**. Adjust the current view of camera that supports the PT function by dragging the **+** button on the display screen.
- **Enable/Disable Digital PTZ**. Click the **+** or **–** button to zoom in or zoom out. The lower right square flashing on the video grid indicates the corresponding view of the camera.
- **Stream Profile**. Select the stream profiles: original, low, or minimum.
- **Enable Audio**. Enable audio on active channels.
- **Snapshot**. Capture a specific video image immediately.
- **Toggle Fullscreen**. Turn the full screen display on and off.

I/O Control Panel

You can adjust the output pins by turning them on or off. Click the **Start Menu** button and select **I/O Control Panel**.

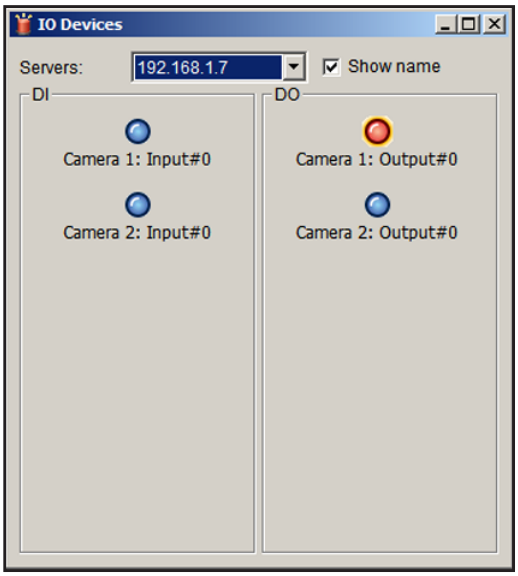


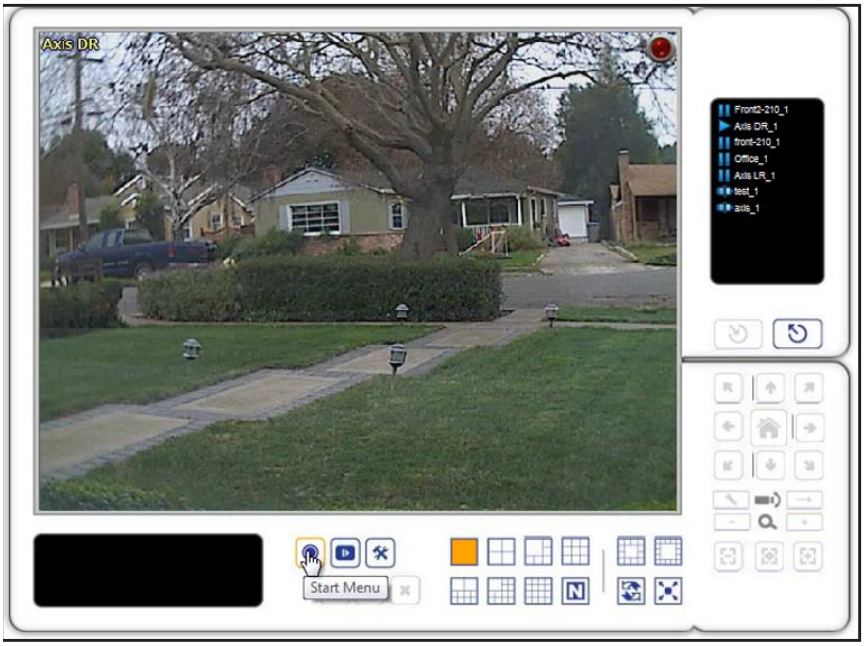
Figure 4. I/O control panel with 1 output pin turned off

Apply a Privacy Mask

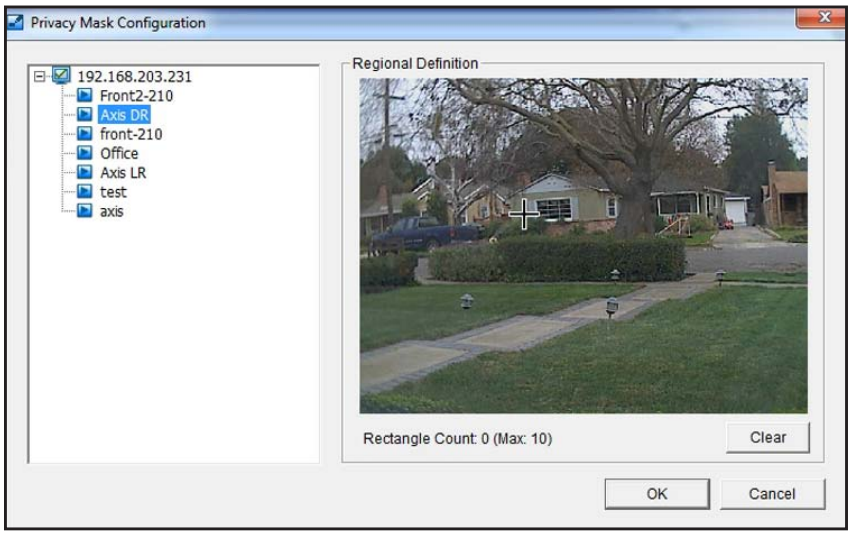
The privacy mask prevents designated areas from being included in the camera's recording. Depending on your location, privacy laws might not allow you to record certain areas such as public streets, or private homes within the recording area of the camera.

➢ **To apply a privacy mask:**

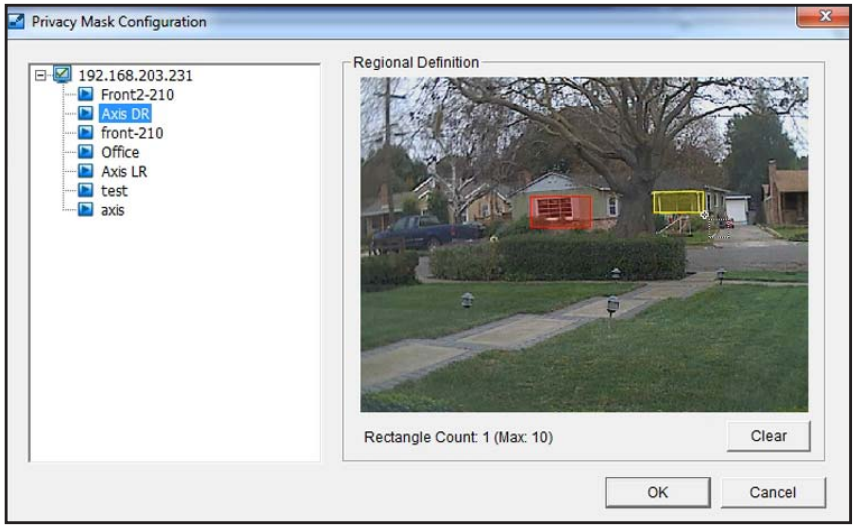
1. Select **Live View**.



2. Click the **Start menu** button and select **Privacy Mask**.
3. Select the camera for which you want to apply a privacy mask.



4. Use the mouse to draw one or more rectangles to specify the areas that you want to mask.



5. Click **OK**.

   In the Live View screen, the rectangles are shown as black boxes.

- **To remove a privacy mask:**

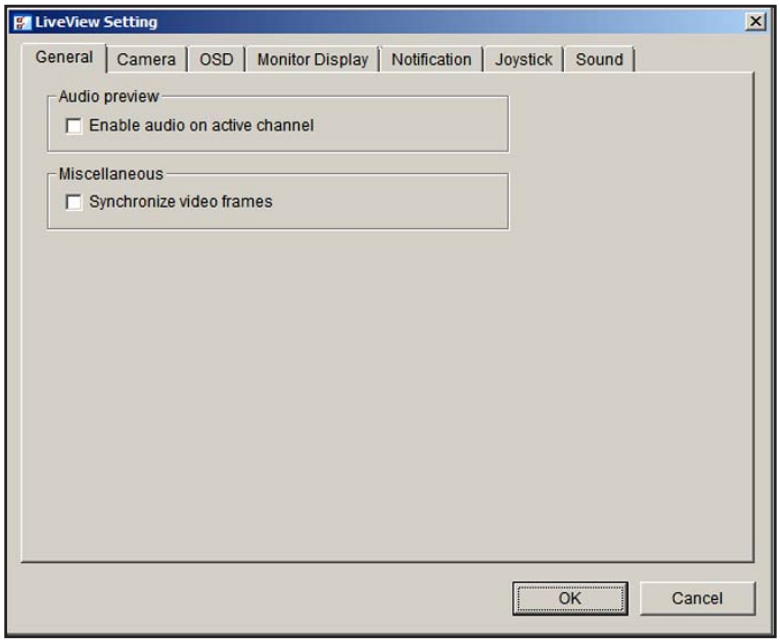
  1. Select the mask.
  2. Click the **Clear** button.

Live View Settings

You can customize settings for Live View. From the Live View screen, click the **Settings** button.

General Settings

When you click the **Settings** button, the Settings General tab displays by default.



➢ **To adjust general settings:**

1. (Optional) To enable audio streaming on the active channel, select the **Enable audio on active channel** check box.
2. (Optional) To avoid tearing in the video display during CPU loading, select the **Synchronize video frames** check box.
3. Click the **OK** button.

   The settings are saved.

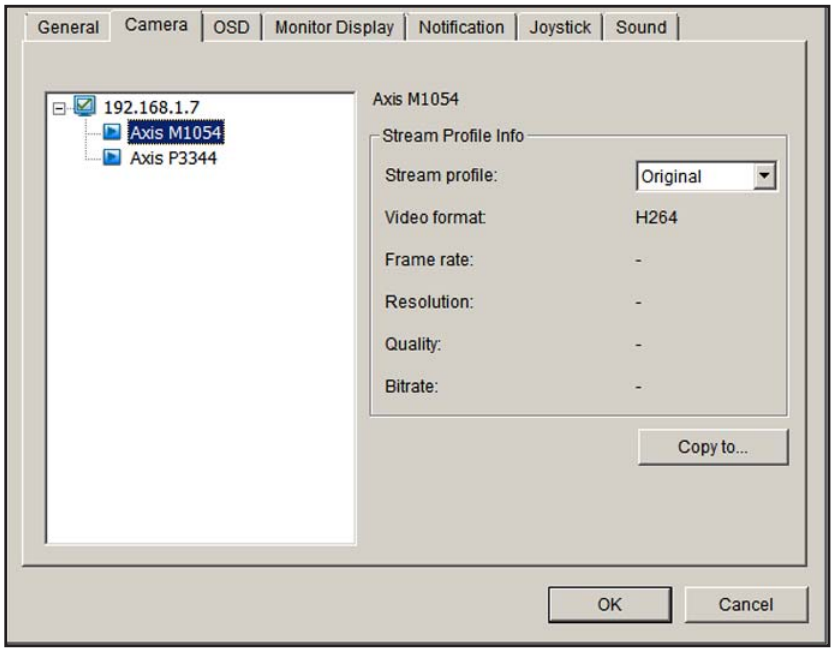
Set Up the Stream Profile for Each Camera

The stream profile consists of streaming video presets. This controls the amount of data transferred between the Surveillance application and remote clients. The stream profile also allows remote clients to quickly select the appropriate video stream to match their bandwidth restrictions

Select the preferred stream type of each camera as the default Live View profile.

➢ **To specify the stream for each camera:**

1. From Live View, click the **Settings** button.
2. Click the **Camera** tab.



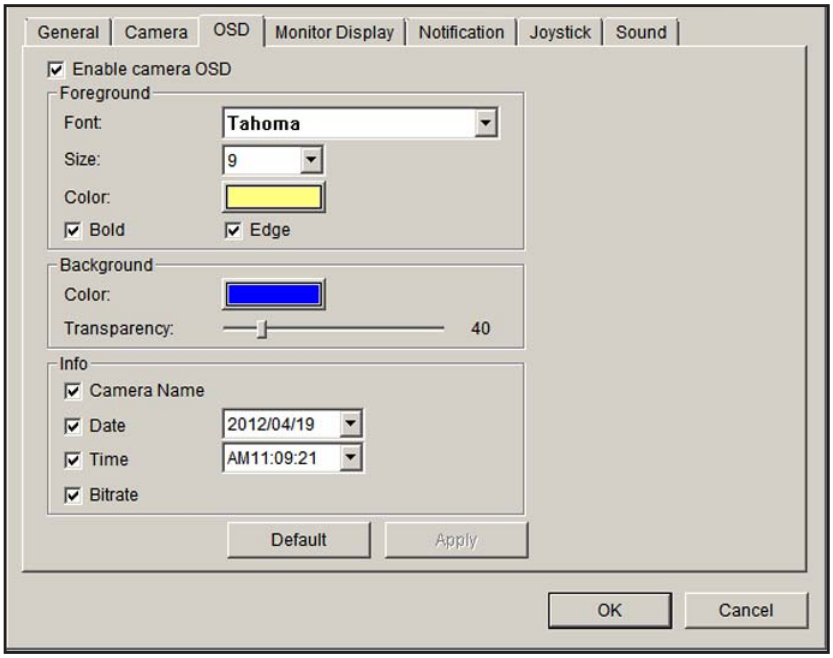
3. Adjust the stream profile of a camera.
4. Click a camera and select its stream profile and click the **Copy to** button to apply this profile to other channels.
5. Click the **OK** button.

Customize the On-screen Display

You can customize the on-screen display (OSD).

➢ **To specify OSD settings:**

1. From Live View, click the **Settings** button.
2. Click the **OSD** tab.



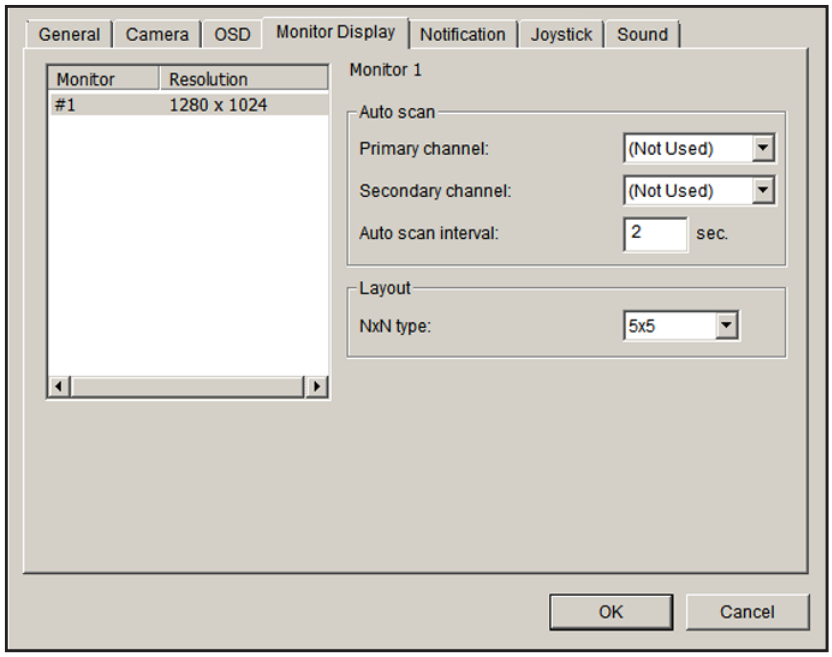
3. Select the **Enable camera OSD** check box.
4. Select the foreground and background settings of the OSD.
5. In the Info section, select the check boxes to specify which information to display on the screen.
6. Click the **Apply** button to preview the result.
7. (Optional) Click the **Default** button to revert to the default settings if necessary.
8. When you are finished making changes, click the **OK** button.

Set the Monitor Display for Auto Scan

The primary channel is always displayed when you activate auto scan.

➢ **To set the monitor display:**

1. From Live View, click the **Settings** button.
2. Click the **Monitor Display** tab.



3. Select the primary channel.

   The primary channel displays when you activate auto scan.
4. Select the secondary channel.

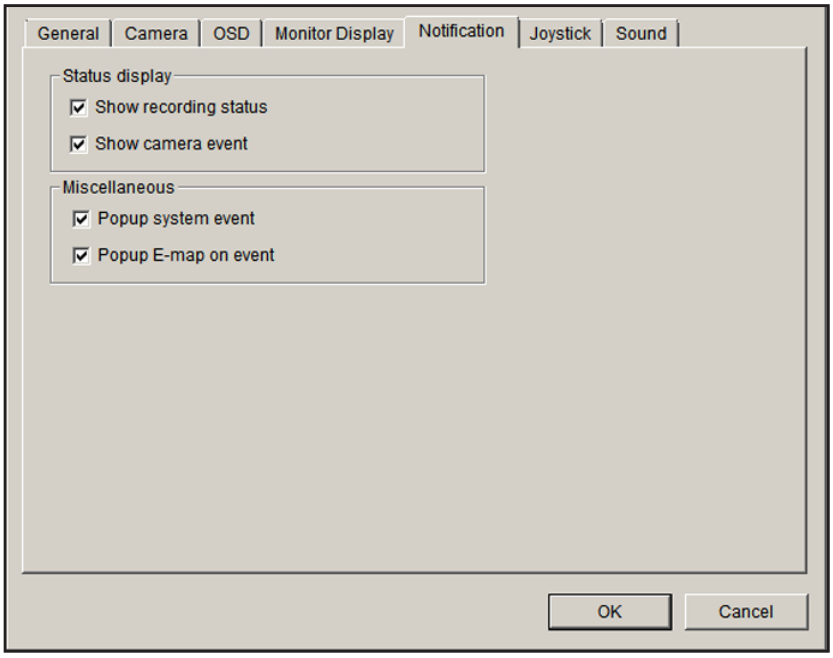
   The secondary channel has second priority when you activate auto scan.
5. Enter the time interval for auto scan.
6. In the NxN type field, select the screen division.
7. Click the **OK** button.

Set Up Notifications

You can set up notifications about recording status and events.

➢ **To set up notifications:**

1. From Live View, click the **Settings** button.
2. Click the **Notification** tab.



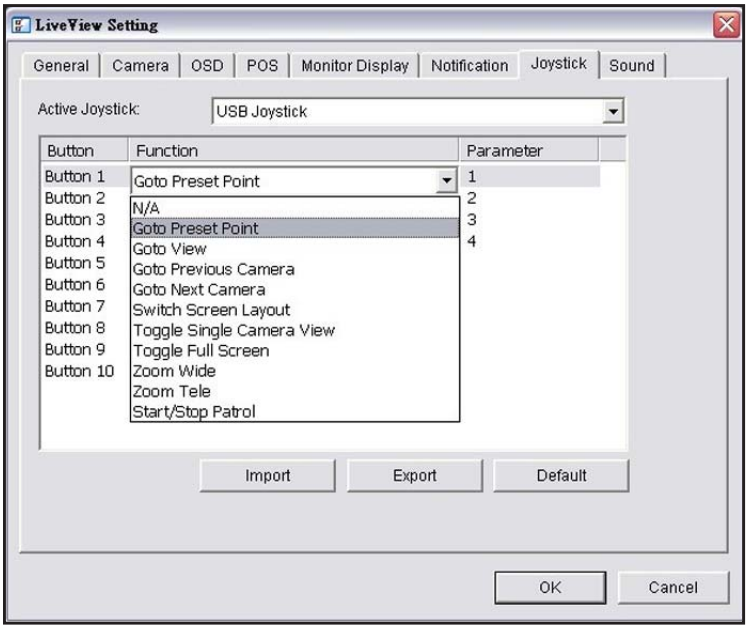
3. Enter the following settings:
   - **Show recording status**. Select this check box to show the crystal ball with recording status on the Live View display.
   - **Show camera event.** Select this check box to display the text describing the detected camera event.
   - **Popup system event**. Select this check box to pop up the system event message dialog box as a warning if a system event occurs.
   - **Popup E-map on event**. Select this check box to pop up the E-map with an event indicator if a camera or I/O box event occurs.
4. Click the **OK** button.

The Popup E-map on event setting activates only if an event occurs. This means that you must set up camera motion, camera input, and I/O box input as events. See *Set Up Events and Actions* on page 24.

Set Up Joystick Control

➢ **To set up joystick control:**

1. From Live View, click the **Settings** button.
2. Click the **Joystick** tab.

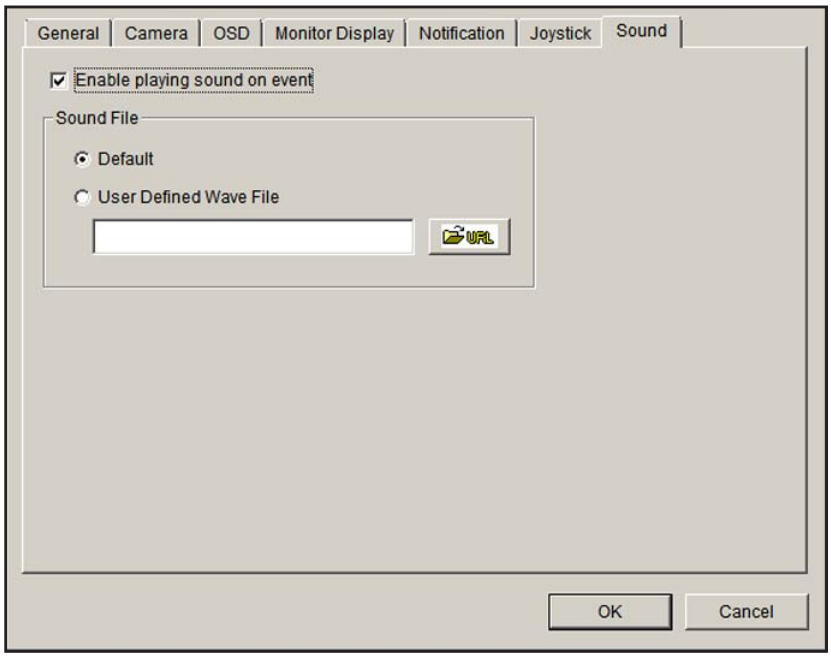


3. Enter the settings:
   - **Function**. Select the function for the joystick from the drop-down list.
   - **Parameter**. Select the preset point from the drop-down list.
   - **Default**. Click to return to the default settings.
   - **Import**. Click to import the settings.
   - **Export**. Click to export the settings.
4. Click the **OK** button.

Set Up Live View Sound for an Event

➢ **To set up Live View sound for an event:**

1. From Live View, click the **Settings** button.
2. Click the **Sound** tab.



3. Select the **Enable playing sound on event** check box.
4. Select the sound file, the default sound, or user-defined sound (.wav).
5. Click the **OK** button.

The sound activates only when an event occurs. To use the sound feature, you must set up camera motion, camera I/O, and I/O box as events. See *Set Up Events and Actions* on page 24.

E-Map

From Live View, you can access the E-map feature. E-map lets you view device (camera or I/O box) locations and alarm status. If an alarm occurs, the device icons on E-map turn red.

When an event occurs, the related E-map pops up to indicate the location of this event. You can control the E-map from the Live View Settings screen by clicking the Notifications tab. See *Set Up Notifications* on page 58.

E-map has two modes:

- **Edit mode**. You can add, edit, or delete maps and device indicators.

- **Browse mode**. You cannot change the settings, but you can check the map hierarchies and device list to see indicators and related information.

➢ **To access E-Map:**

1. From Live View, click the **Start Menu** button.
2. Select **Open E-Map**.

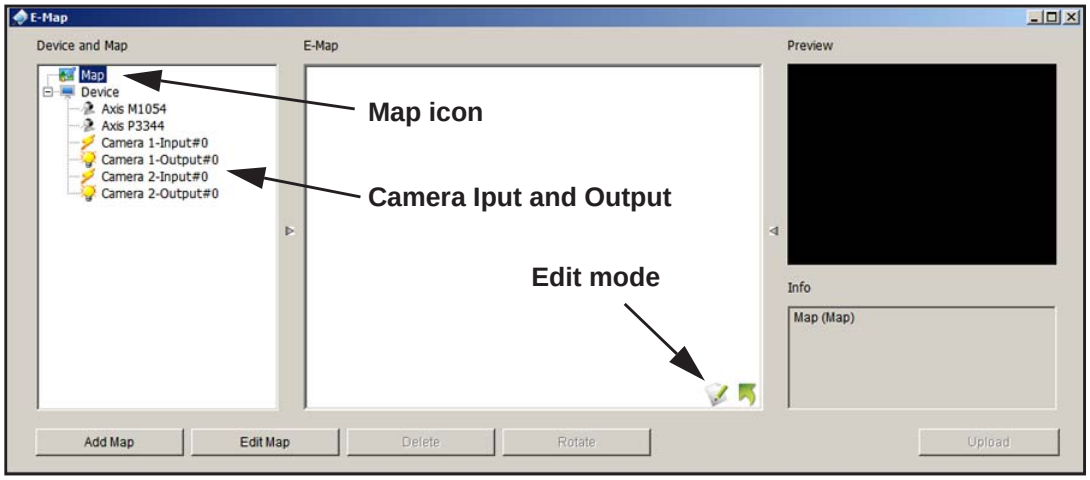
Set Up an E-map

Before you set up an E-map, your cameras and I/O devices must be running on the Surveillance system. Locate image files of the maps that you want to use. The maximum file size of each map is 500 KB. You must add at least one map image file.

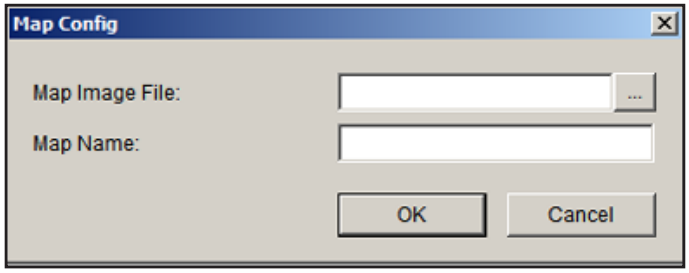
After you add an E-Map and place indicators for the camera digital input and output, the indicators turn red if an event occurs.

➢ **To add a map:**

1. From Live View, click the **Start Menu** button and select **Open E-Map**.



2. Click the **Edit mode** icon.
3. Right-click the **Map** icon or click the **Add Map** button.



4. Select a map image file and enter the map name.

5. Click **OK**.

   The map you added appears in the Device and Map tree list and in the center panel.

6. Drag the device icons to the positions you want on the map.
   - **Camera (Digital) Input**. Select it to highlight the device with a green ring on the map and show the status in the Information window. If the digital input is from an IP camera, the preview window displays live video of the camera.

     Digital input ports are typically connected to door sensors, motion sensors, or outputs from alarm systems. For example, if a building alarm system detects a door open, the camera is notified and could start recording.

   - **Camera (Digital) Output**. Select it to highlight the device with a green ring on the map and show the status on the Information window. If the digital output is from an IP camera, the preview window displays live video of the camera.

     Digital output ports can be connected to alarms, buzzers, lights, or other inputs to alarm systems. You could set up a camera to pass motion event information to these devices. For example, if the camera detects motion, the lights could turn on.

7. Click the **Upload** button to activate all the settings.

Edit a Map

➢ **To edit a map:**

1. Click the **Edit mode** icon.
2. Right-click on the **Map** icon and select **Edit Map**.
3. When you are finished, click the **Upload** button to activate all the settings.

Delete a Map

➢ **To delete a map:**

1. Click the **Edit mode** icon.
2. Right-click the **Map** icon in the Device and Map tree list and select **Delete**.
3. Click the **Upload** button

   The settings are activated.

Delete a Device Indicator

➢ **To delete a device indicator:**

1. Click the **Edit mode** icon.
2. Right-click the indicator and select **Delete**, or click the **Delete** button.
3. Click the **Upload** button

   The settings are activated.

Search and Playback

6

This chapter covers the following topics:

- *Access Playback*
- *Search Recorded Video*
- *Playback Settings*
- *Intelligent Search*
- *Post Processing Tool*
- *Save a Video*
- *Save an Image*
- *Print an Image*
- *Back Up Recorded Video*

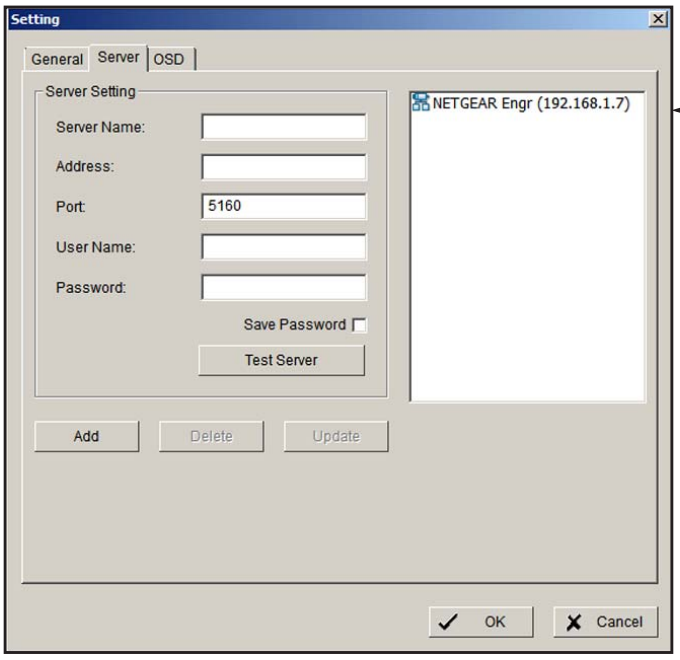
Access Playback

You can access the Playback screen using ReadyNAS Surveillance or the Playback System tool. You have to set up video recording before you can play back video.

To access Playback with Surveillance, log in to Surveillance and select **Playback** from the menu at the top of the screen.

➢ **To access Playback with the Playback System tool:**

1. If you have not already done so, install the ReadyNAS Surveillance Toolkit on a Windows computer.
2. On the Windows Start menu, select or select **All Programs > ReadyNAS Surveillance > Playback System.**
3. To set up access from the desktop to the ReadyNAS unit, click the **Settings** button, and click the **Server** tab:



This is a ReadyNAS system. You can click it to complete the fields.

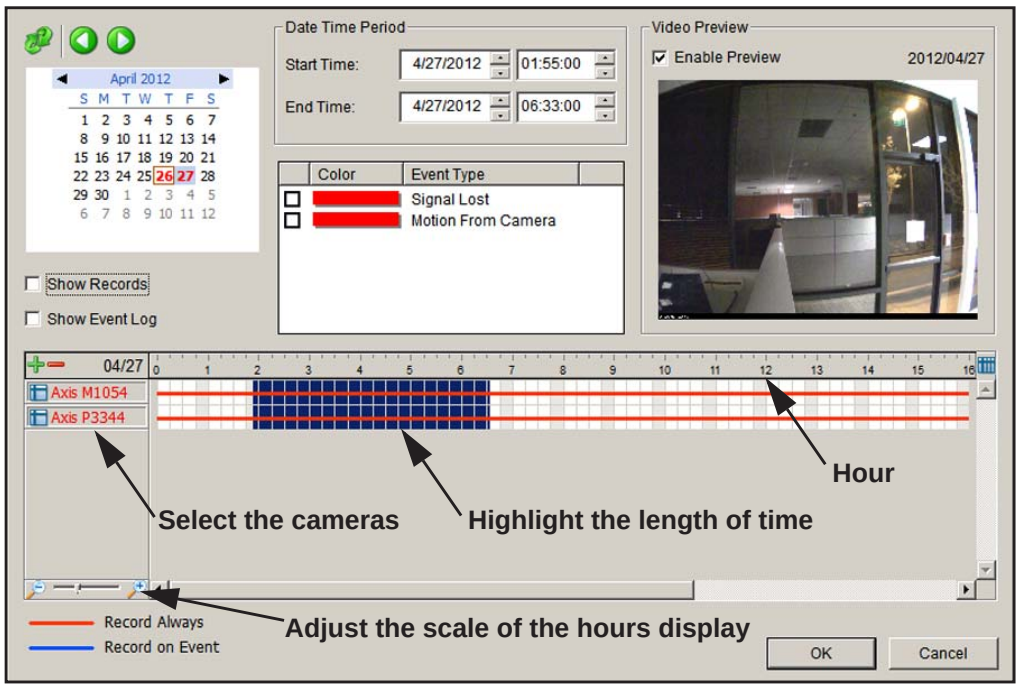
4. Complete the fields to specify the server (the ReadyNAS system) that you want to access for playback.
5. Click the **Test Server** button to make sure that the settings are correct.

Search Recorded Video

The first time that you go to the Playback screen, it is blank because no video has been selected for playback. You have to set up video recording before you can play back video.

➢ **To search for recorded video:**

1. On the Playback screen, click the **Search** button.



2. Set the date, and the start time, and end time for the day that you want to search.
3. Select the cameras that you want to access.
4. Highlight the length of time you want to view.

You can use the following options in this screen.

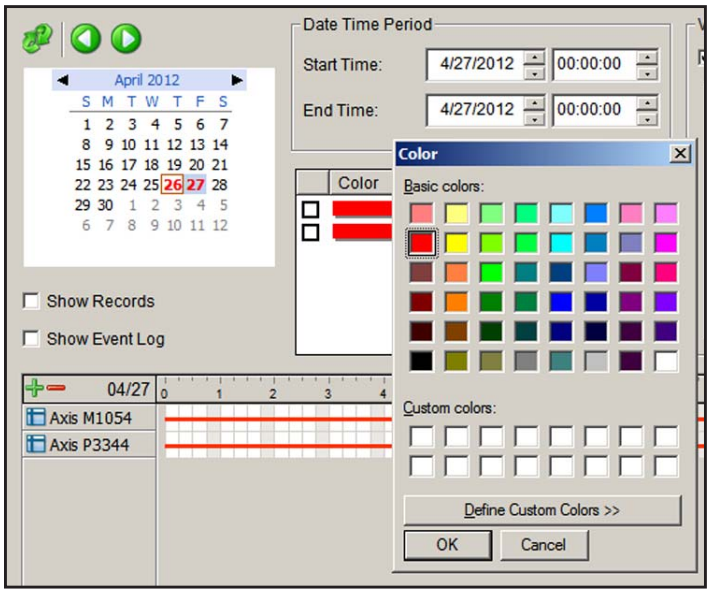
- **Refresh**. Refresh the screen.
- **Left arrow or right arrow**. Go to previous or next recording date.
- **Video Preview**. Select the **Enable Preview** check box to display the recorded video.
- **Start and End Periods**. Select the start and end time points that indicate the time period you would like to view.
- **Time**. The numbers from left to right indicate the hours in a 24-hour clock. You can use the scale bar to modify the scale. You can choose from two recording modes: Record Always and Record on Event. They are shown in different colors.
- **Show Records**. Show the time period that you specified.
- **Show Event Log**. Make the Time Table show the time of event detection. You can define the colors of events.

➢ **To customize the colors for event types:**

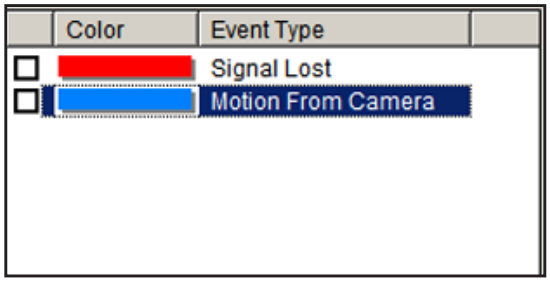
You can change the color of the bars that indicate each event type. This might help you select video clips.

1. Right-click a bar (red, by default).

   The color palette displays:



2. Select the new color that you want to use and click **OK**.



Playback Screen

The following figure shows the Playback screen:

Figure 5. Playback screen with video

This screen has buttons on the side panel and at the bottom.

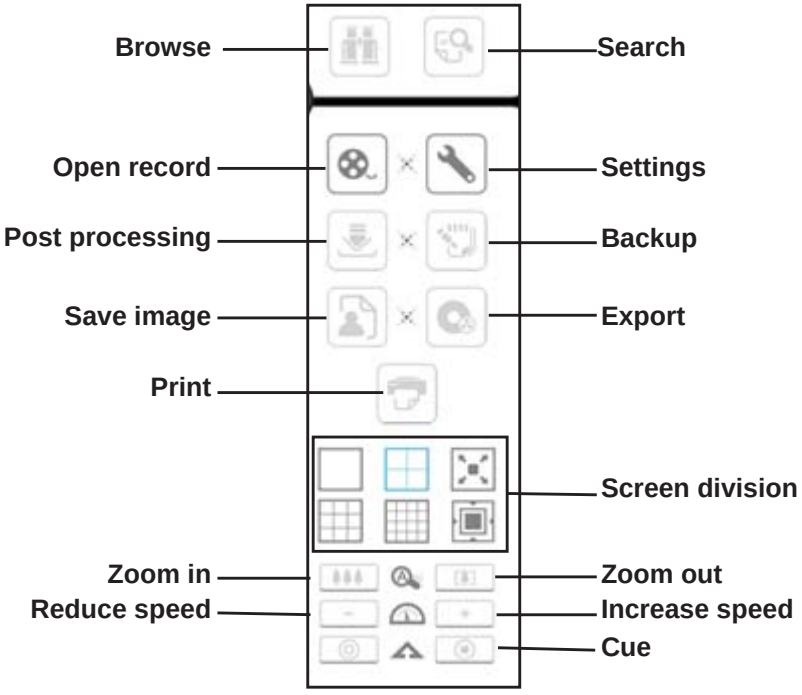


Figure 6. Playback side panel buttons

- **Browse mode**. Play the recorded video when in Search mode.
- **Open Record** button. Access the Date-Time panel and select the video records that you want to review.
- **Settings**. Go to the Playback Settings screen. See *Playback Settings* on page 69.
- **Screen division**. Change the display. To switch to single-camera display, double-click a particular video image. Double-click the screen again to return to the previous layout.

The following figure shows the buttons at the bottom of the screen:

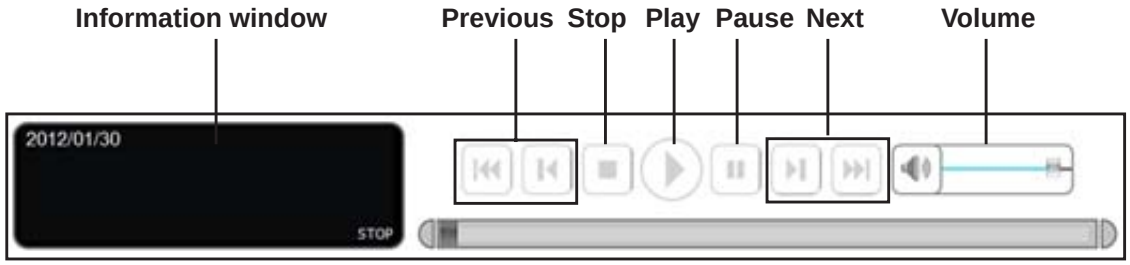
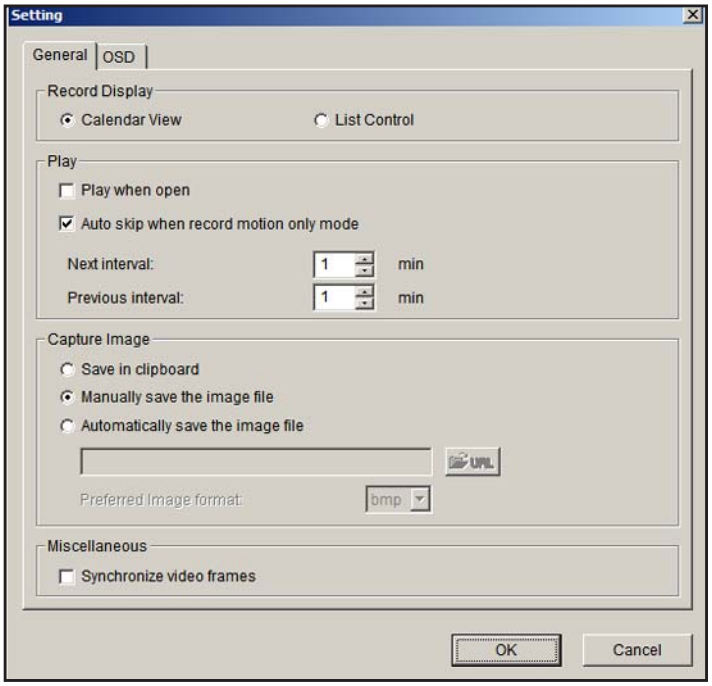


Figure 7. Playback control panel buttons, bottom of the screen

The Information window displays video date and time, cue-in and cue-out point times, and speed.

Playback Settings

On the Playback control panel, click the **Settings** button.



For the OSD Settings, see *Customize the On-screen Display* on page 56.

You can use the General Settings to specify the following.

Record Display

- **Calendar View**. View the Record Display window as a calendar.
- **List Control**. View the Record Display window as a list control.

Play

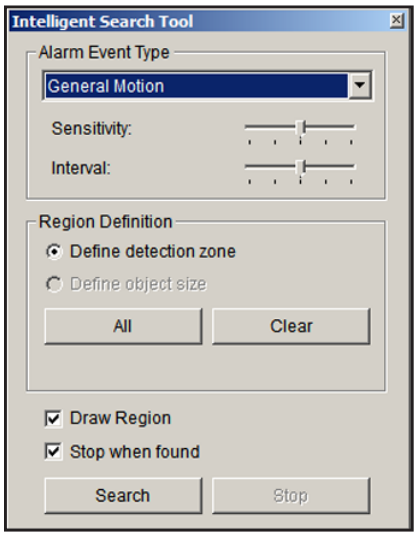
- **Play when open**. Select this check box to set the system to start playing the video clip every time a video is opened.
- **Auto-skip when recording in motion-only mode**. Select this check box to set up the system to automatically skip to the points where there was motion recorded.
- **Next interval**. Set the interval at which the video goes forward when you click the Next button on the control panel.
- **Previous interval**. Set the interval at which the video goes backward when you click the Previous button on the control panel.

Capture Image

- **Save in clipboard**. The image is saved to the clipboard and can be pasted to other application software.
- **Manually save the image file**. You can select where you want to save the image, name the saved file, and select the format in which you want to save the image.
- **Automatically save the image file**. If you preset a path or URL and the image format, the system automatically saves the image when you click the Save Image button on the Playback screen.

Intelligent Search

On the Playback screen, after you search for a video, you can click the **Search Mode** button to refine your search.



You can search for the following events:

- **General Motion**. Detect all movements in the defined area.
- **Foreign Object**. Trigger an alarm when an object appears in the defined area on the screen.
- **Missing Object**. An alarm is triggered when the selected object is removed from the defined area on the screen.
- **Focus Lost**. The system informs you when any camera loses its focus.
- **Camera Occlusion**. An alarm is triggered when the camera is blocked.

➢ **To use intelligent search:**

1. Define the detection zone by dragging to draw a detection zone. You can define more than one zone by repeating this step.
2. (Optional) To search for a missing object, define a detection object by dragging to draw a detection zone.
3. Modify the sensitivity setting by changing the slider control.

   Moving toward the right increases the sensitivity level. For general motion, a relatively small movement triggers the alarm.
4. Set the interval.

   Moving the slider toward the right increases the time interval so that the alarm is not triggered unless the movement lasts longer.
5. Select the **Stop when found** check box.

Otherwise, the system continues to search all events instead of stopping at the moment the event is found.

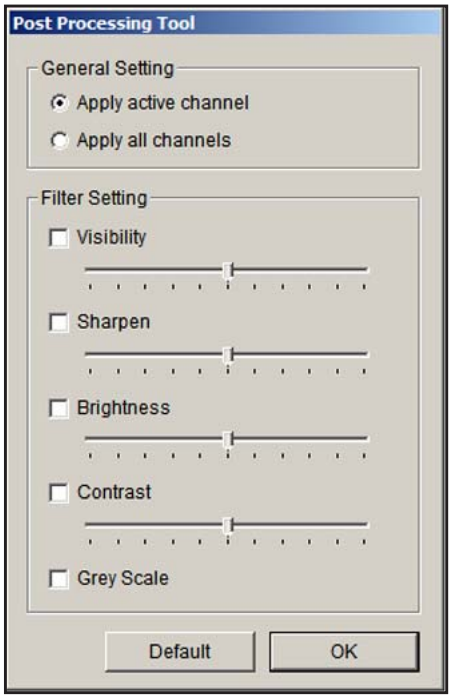
6. Click the **Search** button.

Post Processing Tool

You can use this tool to adjust the appearance of recorded video.

➢ **To use the Post Processing tool**

1. On the Playback screen, click the **Post Processing** button.



2. In the General Setting section, select the radio button that you want:
   - **Apply active channel**. The settings are applied only to the selected channel.
   - **Apply all channels**. The settings are applied to the channels currently shown on the screen.
3. Set the filter setting:
   - **Visibility**. Select this check box and adjust the gamma value of the image to enhance the image and make it cleaner.
   - **Sharpen**. Select this check box and move the slider control to the right to sharpen the image, to the left to soften it.
   - **Brightness**. Select this check box and move the slider control to the right to make the image brighter.

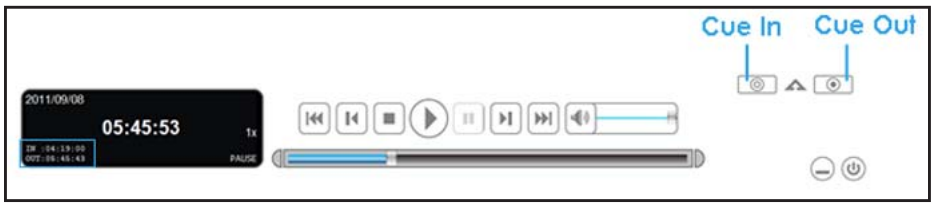
- **Contrast**. Select this check box and move the slider control to the right to increase contrast.
- **Grey Scale**. Select this check box to show the video in gray-scale mode so the image displays in black and white.

4. (Optional) Click **Default** to return the default settings.
5. Click the **OK** button.

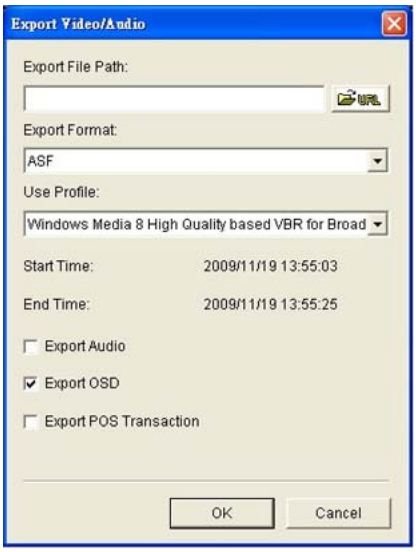
Save a Video

➢ **To save a video:**

1. On the Playback screen, set up the cue in and cue out points.



2. Click the **Save as AVI/ASF** button.
3. Select the folder where you want to save the file.
4. Enter the file name and click the **Save** button.
5. Select the export format.



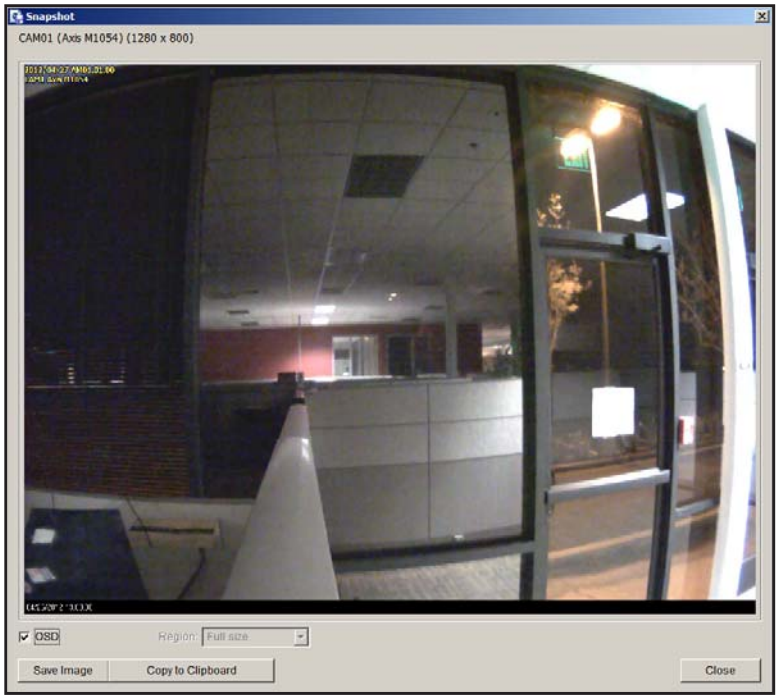
6. Select the use profile.
7. Select the check boxes to export the recorded video with Audio, OSD, POS Transaction.
8. Click the **OK** button.

NETGEAR recommends that you export to the .asf format when saving video. If you export to the .avi format, the frame rate is increased when that video plays, causing it to run faster than normal.

Save an Image

➢ **To save an image:**

1. From the Playback screen, click the **Save Image** button when the image you want is shown on the screen.



2. Select the folder where you want to save the file.
3. Select an image format (BMP or JPEG).
4. Type the file name.
5. Click the **Save** button.

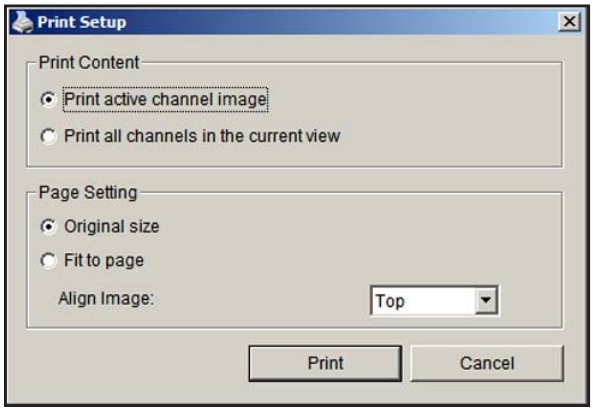
You can skip Step 2 by presetting the folder where you want to save the images and the format you want to save them in.

Print an Image

You can print the current image of the video you select.

➢ **To print an image:**

1. On the Playback screen, click the **Print** button when the image you want is shown on the screen.



2. Set print settings:
   - **Print Content**. Print the image from the currently selected channel or all the channels shown on the screen.
   - Page Setting. Specify one of these settings:
     - **Original size**. Select this to have the image print in the original size.
     - **Fit the page**. Select this to have the image fit the page.
     - **Align Image**. Top, center, or bottom.
3. Click the **Print** button.

Back Up Recorded Video

Different from Save Video, the Backup function saves all the recorded videos that belong to the time slot you set, instead of the clips.

➢ **To back up the recorded video:**

1. On the Playback screen, click the **Backup** button.
2. Set the start time and end time for the portion of the video that you want to back up.
3. Select the cameras with the videos that you want to back up.
4. Select the directory in which you want to save the backup data.
5. Click the **Backup** button.
6. The system begins the backup process automatically.